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No. 03-

In the Supreme Court of the United States

ALCAN ALUMINUM CORPORATION, PETITIONER

v.

UNITED STATES OF AMERICA;
STATE OF NEW YORK

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SECOND CIRCUIT

PETITION FOR WRIT OF CERTIORARI

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QUESTION PRESENTED

Whether a company may be subjected to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and held jointly and severally liable for the entire cost of cleaning up a Superfund site, when its contributions to the site contained at most trace amounts of potentially harmful substances.

STATEMENT PURSUANT TO RULE 29.6

Alcan Aluminum Corporation is a wholly owned subsidiary of Alcan Inc. Alcan Inc. has no parent corporation, and no publicly held company owns 10% or more of its stock.

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INTRODUCTION

This closely watched case presents questions of grave importance to American industry concerning the application of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The Second Circuit held that petitioner could be liable for the *entire* remaining cost of cleaning up two Superfund sites, even though the evidence suggested that petitioner's own contributions to the sites contained at most trace amounts of pollutants. To bring petitioner within CERCLA's sweep, the Second Circuit gave the triggering phrase "hazardous substance" an absurd definition. It then compounded its error by abandoning basic tort principles and refusing to apportion petitioner's liability. If allowed to stand, the Second Circuit's decision will work an unprecedented expansion of the already broad scope of CERCLA — a statute that has memorably been described as "a black hole that indiscriminately devours all who come near it." *Long Beach Unified Sch. Dist. v. Dorothy B. Godwin Cal. Living Trust*, 32 F.3d 1364, 1366 (9th Cir. 1994) (Kozinski, J.) (internal quotation omitted). The Second Circuit's decision has enormous practical consequences, because it will either lead to selective prosecution or subject producers of common and unquestionably non-hazardous substances to potentially staggering Superfund liability. This Court should grant *certiorari* to review the Second Circuit's outlying decision.

OPINIONS BELOW

The Second Circuit's opinion is reported at 315 F.3d 179 and reprinted in the appendix ("App.") at 2a-17a. The unreported order denying the petition for rehearing *en banc* is reprinted at App. 1a. The district court's opinion is reported at 97 F. Supp. 2d 248 and reprinted at App. 18a-64a.

JURISDICTION

The Second Circuit entered judgment on January 7, 2003. Petitioner timely filed a petition for rehearing *en banc*, which

was denied on April 21, 2003. On June 12, 2003, Justice Ginsburg extended the time for filing this petition until September 18, 2003. This Court has jurisdiction pursuant to 28 U.S.C. § 1254(1).

PERTINENT CONSTITUTIONAL AND STATUTORY PROVISIONS

In relevant part, section 107 of CERCLA, 42 U.S.C. § 9607, states as follows:

(a) Covered persons; scope; recoverable costs and damages; interest rate; "comparable maturity" date

Notwithstanding any other provision or rule of law, and subject only to the defenses set forth in subsection (b) of this section —

* * *

(3) any person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances

* * *

[(4)] from which there is a release, or a threatened release which causes the incurrence of response costs, of a hazardous substance, shall be liable for —

(A) all costs of removal or remedial action incurred by the United States Government or a State or an Indian tribe not inconsistent with the national contingency plan;

(B) any other necessary costs of response incurred by any other person consistent with the national contingency plan;

(C) damages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such

injury, destruction, or loss resulting from such a release; and

(D) the costs of any health assessment or health effects study carried out under section 9604(i) of this title.

STATEMENT OF THE CASE

1. This case arises from the efforts of respondents United States and the State of New York (hereafter "the government") to recover costs incurred in remedying environmental contamination at two waste-disposal sites in Oswego, New York. *See* App. 3a. The first (and by far the larger) site was operated by Pollution Abatement Services (PAS) from 1970 to 1977. *See id.* at 25a. The second site was operated by Fulton Terminals, Inc., over the same period, and was used for "overflow" waste from the PAS site. *See id.* at 33a.

During the period that the PAS and Fulton sites were in operation, petitioner Alcan Aluminum Corporation sent waste emulsion to those sites for disposal. *See id.* at 34a. That emulsion was used in the processing of aluminum at Alcan's Oswego plant. *See id.* at 23a-25a. The emulsion consisted of approximately 95% water and 5% mineral oil, but also carried with it small aluminum shavings containing the naturally occurring metals cadmium, chromium, copper, lead, and zinc. *See id.* at 35a, 48a. Alcan sent some 4.6 million gallons of emulsion to the PAS and Fulton sites. *See id.* at 4a, 5a.

2. In 1977, the PAS and Fulton sites were abandoned. *See id.* at 28a, 33a. Over the next ten years, the government spent over $12 million cleaning up the PAS site. *See id.* at 19a. In 1987, the government brought suit under CERCLA to recover response costs from 83 parties (including Alcan) that were potentially responsible for environmental problems at the PAS site. *See id.* at 18a. The government subsequently entered into a settlement with all of the potentially responsible parties except Alcan, under which those parties would pay approximately $9.1 million of the cleanup costs for the PAS site. *See id.* at 19a. Alcan refused to settle, on the ground that

the amount the government was seeking from Alcan ($3.2 million, or some 26% of the overall remediation costs) was excessive in light of the makeup of Alcan's waste emulsion. *See id.*

The government therefore proceeded with litigation against Alcan. *See id.*[1] In 1991, the district court initially entered summary judgment for the government against Alcan, rejecting Alcan's argument that its waste emulsion was not a "hazardous substance" under CERCLA because it contained less than the naturally occurring environmental background levels of cadmium, chromium, copper, lead, and zinc. *See* 755 F. Supp. 531, 536-39 (N.D.N.Y. 1991). But the Second Circuit reversed in relevant part, reasoning that Alcan could avoid CERCLA liability altogether if it could prove that "its pollutants contribute[d] no more than background contamination." 990 F.2d 711, 717 (2d Cir. 1993).

3. On remand before the district court, the government abandoned its prior theory of liability in light of the Second Circuit's decision. Instead, it claimed, for the first time in the litigation, that Alcan was liable because its waste emulsion contained nickel, a naturally occurring metal, and polychlorinated biphenyls (PCBs), a manmade substance. *See* App. 35a-45a. Although neither nickel nor PCBs were found in any tests of the emulsion from the PAS or Fulton sites, the district court nevertheless accepted the government's circumstantial evidence that nickel and PCBs were contained in that emulsion. *See id.*[2] And the court rejected Alcan's alternative argument that it should be exempt from liability

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[1] The government also pursued litigation against Alcan for the cleanup costs of the much smaller Fulton site. *See* App. 4a-5a. That litigation was subsequently consolidated with the litigation involving the PAS site. *See id.* at 5a.

[2] Alcan vigorously disputed this finding, but the Second Circuit affirmed it. *See id.* at 9a. The arguments presented in this petition do not turn on the validity of this finding.

because its emulsion did not contain *above-background* levels of PCBs, reasoning that PCBs were not naturally occurring substances and therefore did not have "background" levels in the environment. *See id.* at 49a-50a. The district court then proceeded to hold Alcan jointly and severally liable for the cleanup costs at the PAS and Fulton sites, rejecting Alcan's arguments that liability should be apportioned. *See id.* at 52a-55a. The district court subsequently entered final judgment in favor of the government for over $13.6 million. *See id.* at 5a.

The Second Circuit (Cardamone, J., joined by Straub and Katzmann, JJ.) affirmed. *See id.* at 2a-17a. Relying on its earlier decision, which stated that CERCLA does not impose quantitative requirements for liability, the court reasoned that the presence of *any* level of PCBs in Alcan's waste emulsion was sufficient to subject Alcan to CERCLA liability. *See id.* at 10a. The court then held that the "special exception" to liability it created in its earlier decision for wastes with below-background levels of "pollutants" was inapplicable to Alcan's emulsion because the emulsion contained PCBs, which are "man-made substances without natural background levels." *Id.* The court proceeded to reject Alcan's further argument that its liability should at least be apportioned, reasoning that (1) Alcan's emulsion contained at least some level of PCBs, and therefore was not "harmless," and (2) Alcan's emulsion could have "facilitated [the] transport" throughout the site of hazardous substances produced by *others*. *Id.* at 10a-13a. Finally, the court rejected Alcan's constitutional challenge to the retroactive application of CERCLA liability. *See id.* at 13a-17a.

The Second Circuit denied rehearing by the panel and rehearing *en banc*. *See id.* at 1a. This petition follows.

REASONS FOR GRANTING THE WRIT

THE SECOND CIRCUIT ERRED BY SUBJECTING A COMPANY TO CERCLA, AND BY HOLDING IT JOINTLY AND SEVERALLY LIABLE, WHEN ITS WASTE CONTAINED AT MOST TRACE AMOUNTS OF A POTENTIALLY HARMFUL SUBSTANCE.

A. The Second Circuit Erred By Concluding That A Company Could Be Subject To CERCLA Liability For Disposing Of Even A Non-Hazardous Substance Simply Because It Contains Trace Amounts Of A Potentially Harmful Substance.

The Second Circuit fundamentally erred in concluding that a generator could be subject to CERCLA liability for disposing of a waste product that contained *any* amount of a potentially harmful substance. If allowed to stand, that ruling will bring even producers of common and unquestionably non-hazardous substances within CERCLA's ambit. *Certiorari* is warranted to correct this bedrock error of interpretation.

As this Court has noted, CERCLA is "a comprehensive statute that grants the President broad power to command government agencies and private parties to clean up hazardous waste sites." *Key Tronic Corp. v. United States*, 511 U.S. 809, 814 (1994). As this Court has also noted, however, CERCLA "is not a model of legislative draftsmanship." *Exxon Corp. v. Hunt*, 475 U.S. 355, 363 (1986). Lower courts have agreed, with one court noting that CERCLA was "passed in great haste" and is "riddled with inconsistencies and redundancies." *United States v. Alcan Aluminum Co.*, 964 F.2d 252, 258 n.5 (3d Cir. 1992). CERCLA's potential breadth is notorious: one recent example involved a reported threat to prosecute Girl Scouts for disposing of trash that included pizza boxes. *See Boehlert, Oxley Team Up To Offer Pared-Down Liability Relief Bill*, Superfund Week, Sept. 22, 2000, *available at* 2000 WL 23761144.

As is relevant here, CERCLA imposes liability on "any person who by contract, agreement, or otherwise arranged for disposal or treatment * * * of hazardous substances * * * at any facility from which there is a release, or a threatened release which causes the incurrence of response costs." 42 U.S.C. § 9607(a)(3)-(4). Although the statute itself does not speak to the issue, courts, including the court below, have universally held that liability under CERCLA is strict, with the result that liability can be imposed even on unwitting parties. *See, e.g.*, App. 6a. The statute, in turn, defines "hazardous substance" as, *inter alia*, "any element, compound, mixture, solution, or substance designated" as such by the EPA. 42 U.S.C. § 9601(14)(B). Among the substances designated as "hazardous" by the EPA is any wastewater that has "come into contact with process contaminants." 40 C.F.R. § 302.4. Although the EPA's regulations specify certain quantities of hazardous substances that must be contained in waste in order to trigger CERCLA's *reporting* requirements, *see id.*, they contain no analogous quantity requirements for purposes of triggering CERCLA's *liability* requirements, *see Alcan*, 964 F.2d at 259-61; *B.F. Goodrich Co. v. Murtha*, 958 F.2d 1192, 1200 (2d Cir. 1992); *City of New York v. Exxon Corp.*, 766 F. Supp. 177, 181-83 (S.D.N.Y. 1991).

It would be wholly illogical, however, to define "hazardous substance" for liability purposes to include *any* product that contains even trace amounts of potentially harmful substances. A variety of unquestionably non-hazardous substances, from milk to rainwater, contain trace amounts of substances that, standing on their own, would be harmful. It is a matter of common sense that whether a substance is harmful depends on concentration and dose. *See, e.g.*, Alice M. Ottbani, *The Dose Makes The Poison* 6, 25 (2d ed. 1997) ("Every chemical has some set of exposure conditions in which it is toxic and, conversely, every chemical has some set of exposure conditions in which it is not toxic."). Interpreting "hazardous substance"

to include any product with even trace amounts of potentially harmful substances would effectively read the word "hazardous" out of CERCLA's liability provisions, in contravention of the basic canon of construction that statutes should not be read in such a way as to render critical terms meaningless. *See, e.g.*, *Morgan v. Illinois*, 504 U.S. 719, 738 (1992). Put another way, such an interpretation would extend strict liability under CERCLA to the producers of unquestionably non-hazardous substances. This Court has routinely "adjusted [even] unambiguous statutory commands to avoid absurd results." John F. Manning, *The Absurdity Doctrine*, 116 Harv. L. Rev. 2387, 2389-91 (2003); *cf.* Antonin Scalia, *A Matter of Interpretation* 23 (1997) ("To be a textualist in good standing, one need not be too dull to perceive the broader social purposes that a statute is designed, or could be designed, to serve * * *.").

In its first decision in this case, the Second Circuit recognized "some force to [the] argument" that giving "hazardous substance" such a broad definition would lead to absurd results, and therefore carved out an exception for waste that contained lower than background levels of "pollutants": that is, levels below those that exist as a result of activities unrelated to the waste at the site. 990 F.2d at 716-17. That exception was designed to "shield from liability those entities that have contributed 'hazardous' substances — defined as such in the law — to a site but whose contribution — in the absence of EPA thresholds — did not exceed natural background levels." App. 10a. In its subsequent decision, however, the Second Circuit inexplicably limited its special exception to "hazardous substances [that] occur in the environment naturally." *Id.* In other words, the court held that a generator could *not* escape CERCLA liability if its waste contained trace amounts of *manmade* pollutants, on the ground that manmade pollutants do not have any "natural background levels." *Id.*

In so holding, the Second Circuit simply ignored the reality

that *manmade* pollutants exist in trace amounts in virtually any product, from milk to breakfast cereal, as well as in such "natural" locations as soil and rainwater. Indeed, the EPA has acknowledged this reality in its remediation policy, which does not normally require cleanup for below-background levels of potentially harmful substances, even manmade ones. *See* EPA, Office of Solid Waste and Emergency Response, Office of Emergency and Remedial Response, *Role of Background in the CERCLA Cleanup Program*, OSWER 9285.6-07P, at 7 (Apr. 26, 2002). In articulating that rule, the EPA expressly recognized that many manmade pollutants may have environmental background levels above zero. *See id.* at 3, 5, 7. In fact, with specific regard to PCBs, the Code of Federal Regulations makes clear that PCBs are "ubiquitous" in the environment. *See* 21 C.F.R. § 109.30(a). The Second Circuit's decision to treat manmade substances differently from naturally occurring ones cannot be justified. By holding that the trace quantities of PCBs in Alcan's emulsion transformed that emulsion into a "hazardous substance" subject to CERCLA liability, the Second Circuit effectively extended the statute's reach to innocuous substances such as milk and rainwater.

At least two other courts of appeals have rejected a similar approach in determining whether a substance is a "hazardous substance" covered by CERCLA. In *Massachusetts v. Blackstone Valley Electric Co.*, 67 F.3d 981 (1995), the First Circuit considered whether ferric ferrocyanide, a manmade substance, constituted a "cyanide" and therefore a "hazardous substance." *See id.* at 989. In so doing, it rejected the EPA's proffered test for determining whether a substance constituted a "cyanide," which turned on the "total cyanide" contained in it. *See id.* The court reasoned that such a test could lead to "nonsensical results" because many everyday substances, such as vitamin B-12, contained cyanide molecules. *Id.* at 989-90. The court concluded that such a test would be "untenably overinclusive" because it would sweep in substances that "no

one, including the EPA, would categorize * * * [as] within the meaning of * * * CERCLA." *Id.* at 990. Similarly, in *Licciardi v. Murphy Oil U.S.A., Inc.*, 111 F.3d 396 (1997), the Fifth Circuit suggested that a company could not be liable under CERCLA for disposing of *de minimis* amounts of hazardous substances. *See id.* at 399. At a minimum, the Second Circuit's decision is in tension with these decisions, and this Court's review is therefore merited.

If allowed to stand, the Second Circuit's decision will subject a wide range of unquestionably non-hazardous products to CERCLA liability. *Cf.* Stephen Breyer, *Breaking the Vicious Circle: Toward Effective Risk Regulation* 39, 40 (1995) (noting that taking CERCLA's ban on "carcinogens" literally would lead to an "odd" result, because it would "mean[] not a single molecule of aflatoxin, red dye no. 2, or benzene, or for that matter, not the tiniest microscopic particle of pepper, spinach, or mushroom" could be discharged into the environment) (citations omitted). A number of food products, such as milk, unavoidably contain certain quantities of PCBs. *See* 21 C.F.R. § 109.30(a). And although the government may wrap itself in the mantle of prosecutorial discretion and claim that it would never prosecute a party for "dumping" food products, it cannot articulate a legitimate justification for treating food products that contain PCBs differently from waste that contains similar trace amounts of PCBs, but that (like food) is largely composed of innocuous substances. If allowed to stand, the Second Circuit's definition of "hazardous substance" will either result in unjustified selective prosecution or subject businesses to potentially staggering liability for disposing of non-hazardous products.

The Second Circuit's interpretation of "hazardous substance" sweeps far beyond what Congress could conceivably have intended. While some lower courts have properly confined CERCLA liability through judicially created exceptions, this case illustrates why the Court cannot always rely on lower

courts to do so. This Court's guidance is needed to make clear that liability under CERCLA is not boundless. *Certiorari* should be granted.

B. The Second Circuit Erred By Concluding That A Company Could Be Jointly And Severally Liable Under CERCLA Simply Because Its Product Could "Spread" Hazardous Materials Produced By Others.

Having erred in concluding that Alcan's emulsion was a "hazardous substance," the Second Circuit compounded its error by holding Alcan jointly and severally liable for the cleanup costs of the two sites (and thereby requiring Alcan to pay more than its fair share of those costs). This aspect of Second Circuit's decision, too, will have sweeping consequences. The logic of the Second Circuit's decision will allow courts to assess joint and several liability against companies that dispose of such innocuous substances as milk, simply because such substances could "spread" hazardous materials produced by others. For this reason, too, *certiorari* should be granted.

Although CERCLA itself does not specifically address the issue, courts have routinely held that joint and several liability may be imposed for CERCLA violations. *See, e.g., Dent v. Beazer Materials & Servs., Inc.*, 156 F.3d 523, 529 (4th Cir. 1998); *Alcan*, 964 F.2d at 268-69; *O'Neil v. Picillo*, 883 F.2d 176, 179 (1st Cir. 1989). In order to mitigate the potential unfairness of requiring a defendant to pay more than its fair share of cleanup costs, however, courts have allowed defendants, consistent with ordinary tort principles, to show that the harm they caused was divisible and therefore that liability should be apportioned. *See, e.g., Chem-Nuclear Sys., Inc. v. Bush*, 292 F.3d 254, 259-60 (D.C. Cir. 2002); *O'Neil*, 883 F.2d at 179; *United States v. Monsanto Co.*, 858 F.2d 160, 171-73 (4th Cir. 1988). Indeed, courts have suggested that aggressive application of the principle of divisibility is particularly necessary to counteract CERCLA's otherwise broad sweep.

See, e.g., Alcan, 964 F.2d at 261 n.13.

Although the Second Circuit paid lip service to the principle of divisibility, its broad "migratory potential" exception to the divisibility rule, if read literally, will swallow that rule altogether. The Second Circuit's fundamental error merits this Court's review.

The Second Circuit began by simply ignoring Alcan's evidence as to the relative amount of pollutants contained in Alcan's waste emulsion. The court reasoned that, "in light of the district court's conclusion that the waste emulsion contained PCBs, it is unreasonable for Alcan to continue to insist that its waste emulsion was harmless." App. 11a. To be sure, Alcan maintained in the court of appeals, as it had in the district court, that there was insufficient evidence to demonstrate that there were *any* PCBs in its waste emulsion (which, if proven, would have immunized Alcan from CERCLA liability altogether). In the alternative, however, Alcan also came forward with uncontested evidence showing that, even if PCBs *were* present in its emulsion, they were present only in minimal quantities.[3] Specifically, Alcan proffered evidence that any PCBs in its waste emulsion constituted no more than 0.01% of all of the known PCBs sent to the PAS site, and that those known PCBs, in turn, constituted only 0.24% of all the waste at the site. *See* C.A. App. 1196. This evidence provided a more than sufficient basis on which to apportion liability.

The Second Circuit then proceeded to suggest that "focusing individually on each constituent of [Alcan's] waste * * * does not provide an acceptable basis for establishing divisibility." App. 11a. The *only* "hazardous" component of Alcan's

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[3] Because the government introduced only circumstantial evidence that PCBs were present at all in Alcan's waste emulsion (such as evidence that PCBs were present in waste emulsion *subsequently* produced by Alcan), it never presented any evidence as to the *quantity* of PCBs in Alcan's waste emulsion.

emulsion that the Second Circuit recognized could give rise to CERCLA liability was PCBs. *See id.* at 10a.[4] There was no specific finding that the PCBs in Alcan's waste emulsion somehow interacted with any *other* hazardous component of Alcan's emulsion, nor that the PCBs interacted consequentially with hazardous substances produced by other generators. Instead, the Second Circuit, relying heavily on the district court's opinion, concluded that the presence of *non-hazardous* substances in Alcan's waste emulsion — namely, the water and mineral oil that constituted virtually all of the emulsion — barred Alcan from establishing divisibility, because those substances could "facilitate[] [the] transport" of *hazardous* substances produced by *other* generators, and therefore "contributed to the breadth of contamination at both PAS and Fulton." *Id.* at 12a-13a (internal quotation omitted). As the district court put it, "[Alcan's] emulsion had a mobilizing effect on other hazardous wastes." *Id.* at 53a.

This startling determination threatens to blow the limits off CERCLA liability entirely. As a threshold matter, the mere addition of waste that itself has a low concentration of hazardous material, even if it has the effect of spreading *other* hazardous substances already at a site, is not necessarily harmful. Indeed, such waste may actually have the beneficial effect of *diluting* the concentration of those substances. Even leaving that aside, however, the Second Circuit's holding that a party should be held jointly and severally liable based on the "migratory capacity" of the *non-hazardous* component of its waste, even where the *hazardous* component is admittedly relatively small, is both illogical and, to the best of our knowledge, unprecedented. Under the Second Circuit's

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[4] Although the district court also concluded, over Alcan's objection, that nickel was present in Alcan's waste emulsion, *see* App. 35a-36a, it did not conclude that nickel was present in greater than background levels, and the Second Circuit therefore did not rely on the presence of nickel in refusing to apportion Alcan's liability, *see id.* at 10a-13a.

reasoning, even if Alcan's waste emulsion had consisted *solely* of water and mineral oil — assuming, for the moment, that such a harmless emulsion could constitute a "hazardous substance" under CERCLA — Alcan could be held *entirely* liable for the cleanup costs for the two sites, simply because that *entirely* non-hazardous emulsion could have absorbed hazardous substances dumped by others and spread it to other locations. In effect, therefore, the Second Circuit used the presence of a minimal amount of PCBs in Alcan's waste (which qualified it as a "hazardous substance") as a bootstrap to subject Alcan to liability for *all* of the PCBs, and indeed all of the hazardous substances, dumped at the two sites (with Alcan entitled only to the limited offset of the disproportionately low share paid by the settling defendants).

The Second Circuit's rule would have the perverse effect of subjecting to joint and several liability any company whose "waste" happens to meet the court's capacious definition of "hazardous substance."[5] This unjustifiable approach has the potential further to broaden CERCLA's sweep, and to threaten businesses with the dramatic prospect of disproportionate and burdensome liability for the cleanup costs of Superfund sites. *Certiorari* is warranted in order to provide guidance to the lower courts on these vitally important issues.

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[5] As we have noted, milk contains PCBs and therefore would qualify as a "hazardous substance" under the Second Circuit's definition. *See* 21 C.F.R. § 109.30(a). Remarkably, moreover, because milk has similar solubility qualities to Alcan's waste emulsion, *see* C.A. App. 1057, the mere disposal of milk could give rise to joint and several liability under the Second Circuit's rule.

CONCLUSION

For the foregoing reasons, this Court should grant the petition for *certiorari*.

Respectfully submitted,

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September 2003

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APPENDIX A

IN THE UNITED STATES COURT OF APPEALS FOR THE SECOND CIRCUIT

No. 01-6008

UNITED STATES

v.

ALCAN ALUMINUM CORP.

April 21, 2003

A petition for rehearing and a petition for rehearing en banc having been filed herein by the appellant Alcan Aluminum Corporation,

Upon consideration by the panel that decided the appeal, it is ordered that said petition for rehearing is **DENIED**.

It is further noted that the petition for rehearing en banc has been transmitted to the judges for the court in regular active service and to any other judge that heard the appeal and that no such judge has requested a vote be taken thereon.

FOR THE COURT
ROSEANN B. MACKECHNIE, Clerk

By:

/s/
Arthur M. Heller, Motions Staff Attorney

APPENDIX B

IN THE UNITED STATES COURT OF APPEALS FOR THE SECOND CIRCUIT

No. 01-6008

UNITED STATES OF AMERICA; STATE OF NEW YORK,

Plaintiffs-Appellees,

v.

ALCAN ALUMINUM CORPORATION,

Defendant-Appellant.

January 7, 2003

Before **CARDAMONE, STRAUB,** and **KATZMANN,** Circuit Judges.

CARDAMONE, Circuit Judge:

Defendant Alcan Aluminum Corporation (Alcan, company or appellant) appeals from a judgment of the United States District Court for the Northern District of New York (McAvoy, J.) entered on November 14, 2000, finding the company jointly and severally liable to plaintiffs United States of America and the State of New York (collectively, the government), for response costs incurred at two hazardous waste sites. It might be said that in writing this opinion we cover ground we have already worked. On a prior occasion we thought that we had thoroughly plowed the field of CERCLA liability, which is the

subject of this appeal. But, on reading the briefs of the parties and those filed by amici supporting appellant's arguments urging reversal, we think it is obviously necessary to plow the same field again.

Background

This appeal is the latest round of litigation to result from the efforts of the United States and the State of New York to recover response costs incurred in remedying environmental contamination at two hazardous waste disposal sites in Oswego County, in central New York. This case has had a long litigation history, detailed in numerous judicial opinions.[1] Because we assume the readers' familiarity with the facts and procedural history set out in those opinions, our recounting of what has been earlier explained will be brief.

This litigation began in 1987 when the government filed suit against 83 business entities to recover response costs under § 107 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. § 9607 (as amended), in connection with the cleanup of an inactive hazardous waste site formerly owned by Pollution Abatement Services of Oswego, Inc. From 1970 to 1977, Pollution Abatement Services operated a waste disposal and treatment facility on 15 acres of land in Oswego County, New York. Chemical wastes from a variety of sources were stored,

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[1] *See, e.g., United States v. Alcan Aluminum Corp.*, 755 F. Supp. 531 (N.D.N.Y. 1991), *aff'd in part, rev'd in part and remanded,* 990 F.2d 711 (2d Cir. 1993); *United States v. Alcan Aluminum Corp.*, Nos. 87-CV-920, 91-CV-1132, 1996 WL 637559 (N.D.N.Y. Oct. 28, 1996); *United States v. Alcan Aluminum Corp.*, Nos. 87-CV-920, 91-CV-1132, 1997 WL 727506 (N.D.N.Y. Aug. 20, 1997); *United States v. Alcan Aluminum Corp.*, 49 F. Supp. 2d 96 (N.D.N.Y. 1999); *United States v. Alcan Aluminum Corp.*, 97 F. Supp. 2d 248 (N.D.N.Y. 2000). Similar issues have been addressed in litigation in the Third Circuit involving identical Alcan waste disposed of at a different site. *See, e.g., United States v. Alcan Aluminum Corp.*, 964 F.2d 252 (3rd Cir. 1992), *on remand, United States v. Alcan Aluminum Corp.*, 892 F. Supp. 648 (M.D. Pa. 1995), *aff'd,* 96 F.3d 1434 (3d Cir. 1996).

processed, and disposed of there. Unfortunately, owing to liquid waste spills, waste lagoon overflows, and structural deterioration, the site became contaminated. Heavy metals and polychlorinated biphenyls (PCBs) are two of the several contaminants detected there. In 1976 the government began response and cleanup activities at the Pollution Abatement Services site (PAS).

Alcan, a manufacturer of aluminum sheet and plate products in Oswego, New York, used PAS during the 1970s and arranged for disposal or treatment of 4.6 million gallons of its waste emulsion at the PAS site. Although this emulsion, which resulted from Alcan's manufacturing processes, consisted mainly of water and oil, it also contained aluminum, cadmium, chromium, copper, lead, and zinc, substances designated as "hazardous" under CERCLA.

Of the 83 entities charged as potentially responsible parties in the government's 1987 lawsuit, only defendant Alcan declined to become a party to the consent decree proposed by the government. On January 15, 1991 the district court granted summary judgment in favor of the government against Alcan, finding Alcan jointly and severally liable for the balance of the government's response costs that had not been reimbursed to it by the other 82 parties to the consent decree. *See United States v. Alcan Aluminum Corp.*, 755 F. Supp. 531 (N.D.N.Y. 1991) (*Alcan-PAS*). On appeal before this Court in 1993, we affirmed the grant of summary judgment with respect to Alcan's liability, but reversed the finding on the joint and several scope of Alcan's liability and remanded to the district court for further proceedings relating to the potential divisibility of harm and the apportionment of damages. *United States v. Alcan Aluminum Corp.*, 990 F.2d 711 (2d Cir. 1993) (*Alcan*).

At the time we decided *Alcan* another case, *United States v. Alcan Aluminum Corp.*, 91-CV-1132 (*Alcan-Fulton*), was pending before the district court. At issue were cleanup costs incurred by the government at a Superfund site in Fulton, New

York. The Fulton Terminal operated from 1972 to 1977 as a staging and storage area for hazardous waste scheduled for incineration at PAS. Approximately 70,000 gallons of Alcan's waste emulsion were shipped directly to the Fulton site from Alcan's Oswego manufacturing plant during 1972 and 1973. On December 1, 1993 the district court consolidated *Alcan-PAS* and *Alcan-Fulton*.

Following consolidation of the PAS and Fulton cases, the district court granted the government's summary judgment motion only on the issue of Alcan's liability to the government for its response costs at Fulton. *See United States v. Alcan Aluminum Corp.*, 1996 WL 637559 (N.D.N.Y. Oct. 28, 1996). The trial court refused to rule on the divisibility of harm and the apportionment of damages with respect to either site at the summary judgment stage. To decide these issues it held a five-day bench trial beginning on October 4, 1999. With the assistance of a court-appointed expert the district court found Alcan jointly and severally liable for response costs at both PAS and Fulton. *See United States v. Alcan Aluminum Corp.*, 97 F. Supp. 2d 248 (N.D.N.Y. 2000) (*Alcan-Consolidated*). On the basis of post-trial submissions the district court entered a final judgment in favor of the United States in the amount of $12,201,929.30 and in favor of the State of New York in the amount of $1,422,155.39. Alcan appeals from this judgment. We affirm.

Discussion

On appeal Alcan challenges essentially every aspect of the district court's many rulings. After carefully reviewing Alcan's arguments we are not persuaded that any of them warrant reversal of the judgment. In the following discussion we address the two we consider the most important issues raised on appeal, namely, the divisibility of the harm at PAS and Fulton and the constitutionality of retroactive CERCLA liability. We think it unnecessary to address the remainder of Alcan's arguments either because they have been sufficiently addressed

in the district court's decisions or because we find them to be wholly without merit.[2]

I. Divisibility of Harm

A. Statutory Threshold for Liability

CERCLA § 9607 is a strict liability statute. It imposes liability on "any person who by contract, agreement, or otherwise arranged for disposal or treatment" of hazardous substances "from which there is a release, or a threatened release which causes the incurrence of response costs." § 9607(a)(3) and (4). As we have explained previously, the plain meaning of this provision permits the government to recover response costs from a defendant like Alcan if the government proves "(1) there was a release or threatened release, which (2) caused incurrence of response costs, and (3) * * * the defendant generated hazardous waste at the clean-up site." *Alcan*, 990 F.2d at 721. The government is not required to show that a specific defendant's waste caused the incurrence of cleanup costs in order for strict liability to attach to that defendant. *Id.*

At this juncture in the instant litigation it has been established that Alcan is liable to the government under the clear language of CERCLA § 9607 for response costs incurred at both PAS and Fulton. Alcan and the government have stipulated that there was a release of contaminants at PAS, that the government incurred costs in response to this release, and that Alcan generated a waste emulsion that was disposed of at the site. The parties have also stipulated that Alcan's waste

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[2] Those arguments are: (1) that expert testimony was improperly admitted; (2) that *res judicata* barred the government from introducing on remand evidence that Alcan's emulsion contained additional hazardous substances; (3) that the district court applied an incorrect standard in deciding the motion for reconsideration; and (4) that the district court erred in not considering its contention that the government's response measures were inconsistent with the National Contingency Plan.

emulsion contained cadmium, chromium, copper, lead, and zinc. Alcan does not dispute that these elements and their respective compounds are identified as "hazardous substances" under CERCLA. The district court — ruling on summary judgment motions of the United States and the State of New York more than a decade ago — found Alcan liable for response costs at PAS. *Alcan-PAS,* 755 F. Supp. 531. We affirmed this ruling when the case came before us the first time. *Alcan,* 990 F.2d at 719-21.

With respect to Fulton, Alcan and the government have similarly stipulated that a release occurred there, that this release resulted in the incurrence of government response costs, and that Alcan generated waste that was delivered to the site. Because the Alcan waste emulsion shipped to Fulton was identical to the waste emulsion shipped to PAS — and thus contained the hazardous substances cadmium, chromium, copper, lead, and zinc — Alcan is also liable pursuant to CERCLA § 9607 for the government's response costs incurred at Fulton.

B. Divisibility Standard

A determination holding Alcan liable under CERCLA § 9607 for response costs incurred by the government at PAS and Fulton does not resolve the issue of liability completely. As we explained previously, courts have added a "common law gloss" to the statutory framework of CERCLA. *Alcan,* 990 F.2d at 721. More specifically, we noted that courts "have at once adopted a scheme of joint and several liability but at the same time have limited somewhat the availability of such liability against multiple defendants charged with adding hazardous substances to a Superfund site." *Id.* at 721-22 (citing *O'Neil v. Picillo,* 883 F.2d 176, 178-79 (1st Cir. 1989) (under some circumstances it is impossible to determine which party caused harm); *United States v. Chem-Dyne Corp.,* 572 F. Supp. 802, 808 (S.D. Ohio 1983) (courts decide liability under common-law principles on a case by case basis)).

The *Restatement (Second) of Torts* § 433A (1965), is frequently cited by those courts endeavoring to determine whether a party that has contributed hazardous substances to a multi-party waste site should be held jointly and severally liable for the remediation costs incurred there. *See, e.g., United States v. Alcan Aluminum Corp.*, 964 F.2d 252, 268-69 (3rd Cir. 1992) (*Alcan-Butler*); *O'Neil*, 883 F.2d at 178; *United States v. Monsanto*, 858 F.2d 160, 171-73 (4th Cir. 1988). Indeed, we referred to the Restatement in our previous decision regarding this case. *Alcan*, 990 F.2d at 722. According to the Restatement, where "two or more causes have combined to bring about harm," damages from the harm are to be apportioned among the causes if "there are distinct harms" or "there is a reasonable basis for determining the contribution of each cause to a single harm." § 433A(1) & cmt. 2.

Based upon the common law principles of divisibility and apportionment embodied in the Restatement, we identified in our previous decision precisely how the issue of Alcan's liability was to be resolved. We stated that Alcan may escape joint and several liability "if it either succeeds in proving that its oil emulsion, when mixed with other hazardous wastes, did not contribute to the release and clean-up costs that followed, or contributed at most to only a divisible portion of the harm." *Alcan*, 990 F.2d at 722 (citing *Alcan-Butler*, 964 F.2d at 270).

Our previous decision presented two additional qualifications material to the district court's liability determination. First, although we declared that it would be possible for Alcan to avoid liability entirely, we specified that such would be a "special exception" that would permit Alcan to escape payment only if the company could prove that "its pollutants did not contribute more than background contamination and also cannot concentrate." *Id.* Second, in the event that Alcan did not qualify for the special exception, we ruled that the company could nonetheless "present evidence relevant to establishing divisibility of harm." *Id.* We identified several types of proof

that would be relevant to such a showing of divisibility, including "relative toxicity, migratory potential, and synergistic capacities of the hazardous substances at the site." *Id.* (citing *Alcan-Butler,* 964 F.2d at 270 n. 29, 271; *Monsanto,* 858 F.2d at 172 n. 26).

Further, our previous *Alcan* opinion made it clear that Alcan bears the ultimate burden of establishing a reasonable basis for apportioning liability and that the government has no burden of proof with respect to what caused the release of hazardous waste and triggered response costs. 990 F.2d at 722. We also emphasized that apportionment is "an intensely factual determination." *Id.* And, as the Third Circuit observed, the burden to show divisibility is "substantial." *Alcan-Butler,* 964 F.2d at 269.

C. *Alcan* Standard Applied

Alcan's divisibility burden has grown heavier as this litigation has progressed. In this case's earliest stages Alcan's liability was premised on the presence of metals in the company's waste emulsion, specifically cadmium, chromium, copper, lead and zinc. *See Alcan-PAS,* 755 F. Supp. at 540. In subsequent proceedings the government adduced evidence that Alcan's waste emulsion was also contaminated with nickel and PCBs. *See Alcan-Consolidated,* 97 F. Supp. 2d at 261-66.

Although Alcan strongly disputes the district court's findings of fact with respect to the presence of nickel and PCBs in its waste emulsion, we review the district court's findings of fact for clear error and a finding of fact is only "clearly erroneous" when "the reviewing court on the entire evidence is left with the definite and firm conviction that a mistake has been committed." *United States v. United States Gypsum Co.,* 333 U.S. 364, 395 (1948). Having thoroughly reviewed the record, we find that whatever Alcan's assertions of factfinding error amount to they are not sufficiently persuasive for us to conclude that the district court's findings are mistaken. On the contrary,

the record contains ample evidence to support the trial court's finding that Alcan's waste emulsion contained nickel and PCBs. Our review of the trial court's divisibility analysis, *infra*, is predicated on these facts.

The finding that Alcan's waste emulsion contained PCBs is particularly significant because — as the district court properly ruled — it disqualifies Alcan from escaping all CERCLA liability. *See Alcan-Consolidated*, 97 F. Supp. 2d at 268-69. The "special exception" that we created when this case was previously before us was intended to excuse a responsible party from all CERCLA liability only in instances where (1) a party contributed hazardous substances to a site in quantities that did not exceed background levels and (2) the hazardous substances were incapable of concentrating. *See Alcan*, 990 F.2d at 722. We created this exception based on an awareness that some CERCLA hazardous substances, like metals, occur in the environment naturally. The narrow exception carved out was aimed to shield from liability those entities that have contributed "hazardous" substances — defined as such in the law — to a site but whose contribution — in the absence of EPA thresholds — did not exceed natural background levels, and did not themselves trigger the incurrence of response costs. Because Alcan's emulsion was contaminated with PCBs, which are man-made substances without natural background levels, Alcan cannot escape liability under the special exception this court articulated.

Even though the company is not permitted to escape liability altogether, we have also recognized that Alcan can nonetheless limit its liability by demonstrating that the harm incurred at PAS or Fulton was divisible. *Alcan*, 990 F.2d at 722. In order to avoid the imposition of joint and several liability under CERCLA, the company must (1) demonstrate that the harm caused by its emulsion was "distinct" from the harm caused by other contributors at PAS and Fulton or (2) proffer a reasonable basis for determining the proportional contribution of its

emulsion to what may be conceived of as a single harm at each site. *Restatement (Second) of Torts* § 433A. We had previously stated that proof of "relative toxicity, migratory potential, degree of migration, and synergistic capacit[y]" of the hazardous substances at the site is relevant to establishing the divisibility of harm. *Alcan,* 990 F.2d at 722.

We agree with the district court that Alcan failed to demonstrate that the harm done at PAS and Fulton was divisible. Alcan does not claim that the harm caused by its emulsion was somehow distinct from the harm caused by other hazardous substances at the sites, nor does the company make any real effort to identify the extent to which its waste contributed to a single harm. Rather, both at trial and again on appeal, Alcan simply contends that its waste emulsion was benign and "really * * * just like homogenized milk." It argues therefore that its contribution to the harm and appropriate portion of the damages is readily identifiable; and that its portion is zero. Appellant also presents this argument in an alternative form, analyzing the properties of the constituents of its waste emulsion separately and contending that such analysis similarly supports a conclusion that its emulsion did not contribute to the harm at PAS or Fulton.

In our view appellant's argument on the divisibility of the harm at PAS and Fulton is untenable in two critical respects. First, in light of the district court's conclusion that the waste emulsion contained PCBs, it is unreasonable for Alcan to continue to insist that its waste emulsion was harmless. Second, appellant's analysis — focusing individually on each constituent of its waste — does not provide an acceptable basis for establishing divisibility. CERCLA cases typically involve numerous hazardous substance generators and the disposal of a variety of wastes at a single site. Because the various wastes frequently commingle and interact, "the fact that a single generator's waste would not in itself justify a response is irrelevant * * * as this would permit a generator to escape

liability where the amount of harm it engendered to the environment was minimal, though it was significant when added to other generators' waste." *Alcan-Butler,* 964 F.2d at 264.

The same logic that prevents a polluter from considering the effects of its waste in isolation from the other contaminants at a site also prevents the company from analyzing the constituents of its waste individually without regard to the effects of the "emulsion as a whole." *See Alcan-Consolidated,* 97 F. Supp. 2d at 269; *United States v. Alcan Aluminum Corp.,* 892 F. Supp. 648, 651 (M.D. Pa. 1995). Because Alcan, which carried the burden of proof, did not comprehensively and persuasively address the effects of its waste emulsion at PAS and Fulton, it cannot be said that the company either established that the harm caused by its emulsion was distinct or proffered a reasonable basis for dividing the harm and apportioning liability. Stated another way, appellant did not satisfy its substantial burden with respect to divisibility because it failed to address the totality of the impact of its waste at each of the sites; it ignored the likelihood that the cumulative impact of its waste emulsion exceeded the impact of the emulsion's constituents considered individually, and neglected to account for the emulsion's chemical and physical interaction with other hazardous substances already at the site.

Our conclusion that Alcan is jointly and severally liable for the harm caused at PAS and Fulton is based upon the district court's finding that

> [t]he evidence suggested that Alcan's emulsion was a more aggressive solvent than either water * * * or oil * * * because, in an emulsion phase, oil and water have a greater capacity to absorb contaminants than either water or oil alone. Alcan's emulsion, therefore, absorbed the contaminants at the sites and facilitated their transport throughout. In so doing, Alcan's emulsion contributed to the breadth of contamination at

> both PAS and Fulton. In other words, even if the hazardous substances in Alcan's emulsion themselves did not contribute to the response costs at the sites (which the PCBs and nickel did), the emulsion as a whole contributed to both the release and response costs.

Alcan-Consolidated, 97 F. Supp. 2d at 270. Our holding finds further support by decisions in the Third Circuit that similarly found Alcan jointly and severally liable for cleanup costs incurred at a site where waste emulsion from the company's Oswego, New York facility was discharged. *See United States v. Alcan Aluminum Corp.*, 892 F. Supp. 648, 651 (M.D. Pa. 1995), *aff'd*, 96 F.3d 1434 (3d Cir. 1996). Having made a determination regarding joint and several liability, we turn to the second issue.

II. Constitutionality of CERCLA

Before this case went to trial on the issue of divisibility, Alcan moved to dismiss the government's complaint pursuant to Fed. R. Civ. P. 12(b)(6) asserting that, in light of the Supreme Court's decision in *Eastern Enterprises v. Apfel*, 524 U.S. 498 (1998), the retroactive application of CERCLA to Alcan's waste disposal activities constitutes an unconstitutional taking under the Takings Clause of the Fifth Amendment and a violation of the Due Process Clause of the Fourteenth Amendment. The district court denied appellant's motion to dismiss. *See United States v. Alcan Aluminum Corp.*, 49 F. Supp. 2d 96 (N.D.N.Y. 1999).

In *Eastern Enterprises* a deeply divided Supreme Court struck down retroactive application of the Coal Industry Retiree Health Benefit Act of 1992 (Coal Act), 26 U.S.C. §§ 9701-22. 524 U.S. at 537-38 (plurality op.), 547-50 (Kennedy, J., concurring in judgment). At issue was a Coal Act allocation formula that assigned the provision of employee retirement benefits, including guaranteed health care benefits established

by a series of collective bargaining agreements in the 1970s, to employers that had left the industry before those agreements became operative. Eastern Enterprises challenged the Coal Act on both takings and due process grounds and a plurality of four justices held that the Act, as applied to Eastern, violated the Takings Clause of the Fifth Amendment. *Id.* at 537-38. A concurring opinion by Justice Kennedy — that joined the plurality's judgment, but which rejected its takings analysis in favor of a substantive due process approach — supplied the fifth vote necessary to deem the applicable section of the Coal Act unconstitutional under the circumstances of that case. *Id.* at 539-50 (Kennedy, J., concurring in the judgment and dissenting in part).

Alcan's invocation of the *Eastern Enterprises* decision puts a new spin on an old argument: many potentially responsible parties have challenged the constitutionality of retroactive CERCLA liability. A review of the case law reveals that, historically, this has not been a winning argument. Prior to the decision in *Eastern Enterprises,* a number of courts held that CERCLA applies retroactively, and that such construction did not violate the Constitution. *See, e.g., United States v. Olin Corp.,* 107 F.3d 1506, 1511-15 (11th Cir. 1997); *O'Neil,* 883 F.2d at 183 n. 12; *Monsanto,* 858 F.2d at 173; *United States v. Northeastern Pharm. and Chem. Co.,* 810 F.2d 726 (8th Cir. 1986); *Raytheon Co. v. McGraw-Edison Co.,* 979 F. Supp. 858, 863-64 (E.D. Wis. 1997); *Cont'l Title Co. v. Peoples Gas Light & Coke Co.,* 959 F. Supp. 893, 893-901 (N.D. Ill. 1997); *Ninth Ave. Remedial Group v. Fiberbond Corp.,* 946 F. Supp. 651, 651-64 (N.D. Ind. 1996); *Nova Chems., Inc. v. GAF Corp.,* 945 F. Supp. 1098, 1100-05 (E.D. Tenn. 1996); *United States v. Kramer,* 757 F. Supp. 397, 428-31 (D.N.J. 1991); *Kelley v. Thomas Solvent Co.,* 714 F. Supp. 1439, 1442-45 (W.D. Mich. 1989).

Given the extensive case law addressing and upholding the constitutionality of retroactive CERCLA liability, the question

is whether *Eastern Enterprises* has changed the constitutional terrain and effectively overruled prevailing authority. The district court thought not, *see United States v. Alcan Aluminum Corp.*, 49 F. Supp. 2d 96, 99-101, and we do not think so either.

Although a majority in *Eastern Enterprises* was willing to declare the retroactive liability scheme of the Coal Act unconstitutional, no single rationale commanded a majority. Only four justices voted to strike down the statute as unconstitutional based upon a takings clause analysis. *See E. Enter.*, 524 U.S. at 537. The fifth vote required to reach that result came in a concurrence that specifically rejected the plurality's takings analysis, but found the statute unconstitutional based on a violation of substantive due process. *Id.* at 539, 550. "When a fragmented Court decides a case and no single rationale explaining the result enjoys the assent of five Justices, 'the holding of the Court may be viewed as that position taken by those Members who concurred in the judgments on the narrowest grounds.'" *Marks v. United States*, 430 U.S. 188, 193 (1977) (quoting *Gregg v. Georgia*, 428 U.S. 153, 169 n. 15 (1976)). This rule only works in instances where "one opinion can meaningfully be regarded as 'narrower' than another — only when one opinion is a logical subset of other, broader opinions," *King v. Palmer*, 950 F.2d 771, 781 (D.C. Cir. 1991) (en banc), that is to say, only when that narrow opinion is the common denominator representing the position approved by at least five justices. When it is not possible to discover a single standard that legitimately constitutes the narrowest ground for a decision on that issue, there is then no law of the land because no one standard commands the support of a majority of the Supreme Court. *See Rappa v. New Castle County*, 18 F.3d 1043, 1058 (3rd Cir. 1994).

With respect to the Supreme Court's analysis in *Eastern Enterprises*, it is difficult to discern a general principle of law that supports appellant's claim that retroactive CERCLA liability is unconstitutional. Because the substantive due

process reasoning presented in Justice Kennedy's concurrence is not a logical subset of the plurality's takings analysis, no "common denominator" can be said to exist among the Court's opinions. The only binding aspect of such a splintered decision is its specific result, and so the authority of *Eastern Enterprises* is confined to its holding that the Coal Act is unconstitutional as applied to Eastern Enterprises.

Significantly, two appellate courts have failed to hold the Coal Act unconstitutional as it applies to other coal mining corporations. *See Anker Energy Corp. v. Consolidation Coal Co.*, 177 F.3d 161, 168 (3d Cir. 1999); *Ass'n of Bituminous Contractors, Inc. v. Apfel*, 156 F.3d 1246, 1247 (D.C.Cir. 1998). If the holding of *Eastern Enterprises* is so specific that it does not support a finding that the Coal Act's retroactive liability provision is unconstitutional as applied to coal operators not in the same position as Eastern Enterprises, then it may not be said to stand for the much broader proposition that the application of retroactive CERCLA liability to Alcan runs afoul of the Constitution.

As noted, courts considering the issue prior to the *Eastern Enterprises* decision consistently agreed that the retroactive liability scheme of CERCLA is constitutional. Like this Court, several other courts have been asked to reconsider this precedent in light of *Eastern Enterprises*. Those courts have uniformly held that CERCLA continues to pass constitutional muster. *See United States v. Dico, Inc.*, 266 F.3d 864, 879-80 (8th Cir. 2001); *Franklin County Convention Facilities Auth. v. Am. Premier Underwriters, Inc.*, 240 F.3d 534, 550-53 (6th Cir. 2001); *United States v. Manzo*, 182 F. Supp. 2d 385, 407-08 (D.N.J. 2000); *Combined Prop./Greenbriar Ltd. P'ship v. Morrow*, 58 F. Supp. 2d 675, 677-82 (E.D. Va. 1999); *United States v. Vertac Chem. Corp.*, 33 F. Supp. 2d 769, 784-85 (E.D. Ark. 1998), *rev'd on other grounds sub nom. United States v. Hercules, Inc.*, 247 F.3d 706 (8th Cir. 2001).

We are in accord with this consistent authority that both pre- and post-dates *Eastern Enterprises*. As a consequence, holding Alcan jointly and severally liable under CERCLA for the cleanup costs incurred at PAS and Fulton does not result in an unconstitutional taking adverse to Alcan, or a deprivation of its right to due process.

Conclusion

For the reasons stated, the judgment of the district court is affirmed.

APPENDIX C

IN THE UNITED STATES DISTRICT COURT FOR THE NORTHERN DISTRICT OF NEW YORK

Nos. 87-CV-920, 91-CV-1132

UNITED STATES OF AMERICA, and **THE STATE OF NEW YORK**,

Plaintiffs,

v.

ALCAN ALUMINUM CORPORATION, *et al.*,

Defendants.

May 1, 2000

MEMORANDUM — DECISION & ORDER

McAVOY, District Judge:

I. Procedural History

On June 10, 1987, the United States of America and the State of New York (collectively "the government") initiated an action against 83 business entities to recover response costs pursuant to Section 107 of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") as amended, 42 U.S.C. § 9601, *et seq.*, in connection with the clean-up costs of a hazardous waste site formerly owned by Pollution Abatement Services of Oswego, Inc. ("PAS"). Shortly after commencement of that action, the government entered into a

consent decree with 82 of the defendants, recovering approximately $9.1 million of the approximately $12.3 million in response costs incurred through April 1, 1987. The present litigation proceeded against Alcan Aluminum Corporation ("Alcan"), the only non-settling defendant.

In February 1988, Alcan commenced a third-party action against Cornell University ("Cornell"). That action sought a declaration that Cornell was jointly and severally liable for the response costs incurred by the government relative to PAS and an order directing Cornell to contribute its fair share of the costs.

In January of 1991, this Court granted summary judgment in favor of the government, holding Alcan jointly and severally liable for approximately $4 million in response costs at PAS. *See United States v. Alcan,* 755 F. Supp. 531 (N.D.N.Y. 1991) ("Alcan-PAS"). The Court also granted Alcan's motion against third-party defendant, Cornell, and found that a hearing was necessary to determine Cornell's fair share of response costs. *See id.*

On November 19 and 20, 1991, the Court held a hearing to determine Cornell's fair share of the response costs incurred by the government at PAS. The Court adopted the six-factor fair share allocation test set forth in *United States v. R.W. Meyer, Inc.,* 932 F.2d 568 (6th Cir. 1991), and found Cornell liable for six percent of the response costs recovered from Alcan and, thus, the Court awarded Alcan $310,540.92.

On appeal, the Second Circuit affirmed the grant of summary judgment with respect to the imposition of liability against Alcan for response costs at PAS and the finding that Alcan was entitled to contribution from Cornell. *See United States v. Alcan,* 990 F.2d 711 (2d Cir. 1993). However, the Second Circuit reversed the Court's finding that the government was entitled to summary judgment on the issue of damages. *See id.* In "essentially" adopting the reasoning of the Third Circuit in

United States v. Alcan Aluminum Corp., 964 F.2d 252, 267-271 (3d Cir. 1992) ("*Alcan-Butler*"), the court found that the common law scheme of joint and several liability applies to CERCLA. Under this rubric,

> where two or more tortfeasors act independently and cause a distinct or single harm, for which there is a reasonable basis for division according to the contribution of each, then each is liable for damages only for its own portion of harm. In other words, the damages are apportioned. But where each tortfeasor causes a single indivisible harm, then damages are not apportioned and each is liable in damages for the entire harm.

990 F.2d at 722 (citing Restatement (Second) of Torts § 433(A) (1965)). The Second Circuit "candidly admitted" that its holding brought causation into CERCLA, a strict liability statute, through the back door, but limited the "special exception to the usual absence of causation" to situations where a defendant's "pollutants did not contribute more than background contamination and also cannot concentrate." *Id.* Thus, the court held:

> Alcan may escape liability if it either succeeds in proving that its oil emulsion, when mixed with other hazardous wastes, did not contribute to the release and the clean-up costs that followed, or contributed at most to only a divisible portion of harm.

Id. (citing *Alcan-Butler*, 964 F.2d at 270). The court further instructed that Alcan "may present evidence relevant to establishing divisibility of harm, such as, proof disclosing the relative toxicity, migratory potential, degree of migration, and synergistic capacities of the hazardous substances at the site" to show that the harm at PAS was divisible. *Id.* (citing *Alcan-Butler*, 964 F.2d at 270 n. 29, 271; *United States v. Monsanto, Co.*, 858 F.2d 160, 172 n. 26 (4th Cir. 1988), *cert. denied*, 490

U.S. 1106 (1989)). Finally, the court held that if Alcan can show divisibility of harm they must also provide a "reasonable basis for apportionment of liability." *Id.*

At that time, the case *United States v. Alcan Aluminum,* 91-CV-1132 ("Alcan-Fulton"), involving clean-up costs at a superfund site in Fulton, New York was also pending before the Court. On December 1, 1993, the Court consolidated Alcan-Fulton with the PAS case.

In May of 1996, the government moved for summary judgment against Alcan on two issues: (1) liability in the Alcan-Fulton case and (2) divisibility of harm and apportionment of costs in Alcan-PAS. Alcan opposed this motion, cross-moved for summary judgment on the same issues, and moved to dismiss for lack of subject matter jurisdiction, claiming that CERCLA (1) cannot be applied retroactively and (2) is violative of the Commerce Clause. On October 28, 1996, the Court granted the government's motion for summary judgment with respect to liability at the Alcan-Fulton site,[1] denied Alcan's motion to dismiss for lack of subject matter jurisdiction, and reserved decision pending rebriefing on the issues of divisibility and apportionment of harm. *See United States v. Alcan Aluminum Corp.,* 1996 WL 637559 (N.D.N.Y. Oct. 28, 1996).

After considering the supplemental briefing submitted by both parties, the Court denied the government's motion for

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[1] To establish liability under CERCLA the government must establish that: (1) a defendant is in one of the four categories of covered persons listed in 42 U.S.C. § 9697(a) as liable for costs of remedial action; (2) the site of the cleanup is a facility within 42 U.S.C. § 9601(9)'s definition; (3) there is a release or threatened release of hazardous substances at the facility; (4) as a result of which plaintiff has incurred response costs; and (5) the costs incurred conform to the National Contingency Plan under 42 U.S.C. § 9607(a)(4)(a) as administered by the Environmental Protection Agency. *See Alcan,* 990 F.2d at 719-20 (citing *B.F. Goodrich Co. v. Murtha,* 958 F.2d 1192 (2d Cir. 1992)). Alcan did not contest these elements and, thus, the Court granted the government's motion for summary judgment on this issue. *See Alcan,* 1996 WL 637559, at *7.

summary judgment; finding that genuine issues of fact existed with respect to the constituents of Alcan's emulsion;[2] whether the emulsion contributed to the response costs and clean-up; and whether the metals in Alcan's emulsion could have concentrated and, thus, posed an environmental threat. *See United States v. Alcan,* 1997 WL 727506, at *4 (N.D.N.Y. Aug. 20, 1997).

On October 29, 1998, Alcan moved to dismiss the Complaint pursuant to Fed. R. Civ. P. 12(b)(6), asserting that the retroactive application of CERCLA is unconstitutional in light of the Supreme Court's decision in *Eastern Enter. v. Kenneth S. Apfel,* 524 U.S. 498 (1998). The Court denied this motion in a Memorandum-Decision & Order dated May 11, 1999. *See United States v. Alcan Aluminum Corp.,* 49 F. Supp. 2d 96 (1999).

Cornell was released from this case by a stipulation signed September 29, 1999.

The Court held a bench trial in this action during October 4-8, 1999 to determine whether Alcan could avoid or limit liability.[3] At trial, the government argued that Alcan could not avoid liability because: (1) Alcan could not prove that its emulsion, when mixed with hazardous substances, did not contribute to the release or clean-up costs or contributed to a divisible portion of the harm; (2) Alcan's emulsion contained polychlorinated biphenyls ("PCBs"), Volatile Organic

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[2] Alcan claimed that its emulsion contained only (1) cadmium; (2) chromium; (3) copper; (4) lead; and (5) zinc whereas the government claimed that the emulsion also contained (6) aluminum; (7) nickel; (8) polychlorinated biphenyls ("PCBs"); and (9) volatile organic compounds ("VOCs"). *See Alcan,* 1997 WL 727506, at * 4.

[3] With the parties consent, the Court appointed an expert pursuant to Fed. R. Evid. 706 to assist it in evaluating the scientific evidence. The Court's expert, Professor Charles Driscoll, Ph.D., is associated with the Department of Civil and Environmental Engineering at Syracuse University. The expert's report is part of the record in this case.

Compounds ("VOCs"), and above background levels of metals, which contributed to the release and clean-up costs; and (3) the metals in Alcan's emulsion were capable of concentrating. Alcan, on the other hand, argued that: (1) its emulsion did not contain PCBs, VOCs, or above background levels of metals; (2) the metals did not concentrate; (3) that the legal standard adopted by this Court is incorrect; and (4) it could establish divisibility of harm by looking at the relative toxicity of hazardous substances at the PAS and Fulton Sites and demonstrating that the emulsion contained only background metals that did not concentrate. Alcan did not address the effect of its emulsion as a whole on the response costs at PAS and Fulton; instead, it focused on the individual constituents of its emulsion.

II. Findings of Fact

A. Alcan's Plant and the Hot Rolling Process

Alcan operates a hot mill, including a hot rolling line which processes aluminum ingots[4] into sheets of aluminum. The process uses an oil and water emulsion to lubricate and cool the ingot and the steel rolls used to reduce the ingot's width. The emulsion picks up fragments of the ingots during the rolling process. Although the emulsion is filtered before disposal, the filtration process does not remove all of the metal fragments. As a result, Alcan's emulsion contains aluminum as well as the impurities in the ingot, cadmium, chromium, copper, lead, nickel, and zinc.

Before the ingot is placed on the hot rolling line, it is heated in "pusher furnaces" (also called homogenizing furnaces or soaking pits). In the 1970s, Alcan cleaned the ingot with 1,1,1, Trichloroethane ("TCA") before placing it in these furnaces.

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[4] The aluminum ingots are composed of recycled beverage containers and scrap aluminum that are melted down and cast into ingots. *See* Lagoe Testimony. The ingots are not pure aluminum; impurities include cadmium, chromium, copper, lead, nickel, and zinc.

After it is heated, the ingot is placed on the hot rolling line where it passes through an edging mill, two rolling mills, and various shears.

The first rolling mill, the 120 inch reversing mill (the "120 inch mill"), reduces the thickness of the ingot by approximately one half inch each time the ingot passes through. Alcan uses a two to three percent oil[5] and water emulsion as a lubricant and coolant in this mill (the "120 inch mill emulsion"). After the ends are sheared, the ingot travels to the 100 inch mill (also called the finishing mill or tandem mill) (the "100 inch mill"), which further reduces its thickness. An emulsion composed of about six percent oil in water is used to cool and lubricate the rolls in the 100 inch mill (the "100 inch mill emulsion").

The used emulsion is collected in sumps underneath each of the mills. The scum-like top layer of the emulsion is removed with a skimming system before the bulk of the emulsion is pumped into the system's "dirty compartment" for storage. The emulsion is then sent through a belt type skimmer, and next, to a recirculation system. *See* Government Ex. 36, at p. 1. Distilled water is added to the emulsion to keep the concentration of oil and water constant. The emulsion is recirculated for up to one year before it is deposited in a waste emulsion collection system in the hot mill area and pumped to a central storage facility for processing and disposal. The sumps underneath the rolling mill are not continuous. There are walls or other barriers separating the 100 inch mill emulsion from the 120 inch mill emulsion. When the emulsions are sent to waste, however, they are combined. *See* Lagoe Testimony, Tr. at 168. At the time of disposal, the waste emulsion was composed of approximately eighty percent emulsion from the 100 inch mill,

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[5] At the time Alcan disposed waste at PAS and Fulton, they used Farbest oil in the emulsion. The Farbest oil contained oil and unknown proprietary additives.

ten percent emulsion from the 120 inch mill, and ten percent hydraulic, lubricating, and bearing oils. *See id.* at 149.

The floor and wall areas underneath the roll table and shear pits are cleaned only once per year; thus, the areas are not subject to a constant flushing of coolant during production. *See* Government Ex. 24.

Until the mid-1980s, in addition to the hot rolling line, the hot mill area contained a plate mill (also called the flat sheet line and cut-to-length line). The plate mill converted the rolls of aluminum created by the hot mill into flat sheets of aluminum. Alcan used rags soaked with TCA to clean the rollers on this line. *See* Lagoe Testimony, Tr. at 52.

Other than the discontinuation of use of certain materials like TCA and fluid containing PCBs, there were no major changes on the hot rolling line from 1970 to 1989. In 1978, however, Alcan installed an ultra filtration unit. The ultra filtration unit processes the emulsion so that less material is sent out for disposal and more is recycled in house. *See* Lagoe Testimony, Tr. at 18. In the ultra filtration process, the emulsion is circulated through a membrane system, yielding two by-products: "the ultra filtration concentrate which is subsequently used as a fuel and a permeate which then flows to an on-site lagoon for further treatment." *See* Government Ex. 36, at p. 2. Sometime in 1978, the ultra filtration unit was connected to outfall 002, which discharged treated permeate into Lake Ontario. *See* Lagoe Testimony, Tr. at 187; Government Ex. 3.

B. PAS

From 1970 to 1977, Pollution Abatement Services operated PAS, a high temperature liquid chemical waste incineration facility on fifteen acres in the City of Oswego, New York. Lake Ontario lies almost directly North of PAS and the entire site area slopes toward Lake Ontario. The site lies between two creeks (Wine Creek and No Name Creek), which intersect. The creeks collect surface water and carry it to Lake Ontario. *See*

Appendix 1. A million gallon lagoon was located in the southern portion of the site, at the highest level of elevation. Leakage from the lagoon's North side and overflow flowed North toward Lake Ontario. The middle area of PAS contained thousands of drums of "various chemicals in various conditions." MacDonald Testimony, Tr. at 586. The lower portion of PAS contained a number of storage tanks and an incinerator. The incinerator stopped working at some point during PAS's operation and waste that was meant to be incinerated was combined and stored in on-site lagoons. *See* MacDonald Testimony, Tr. at 585.

Several liquid waste spills and lagoon overflows occurred while PAS operated the site. The combination of high rain fall and overflowing and leaking lagoons led to three oil spills in 1976. In April, the United States Coast Guard ("USCG") responded to PAS to investigate an oil spill. Commander MacDonald, the investigating officer, found that the site was significantly contaminated. "Some of [the] drums were holding liquids. Some of the drums had completely disintegrated, leaving a jelly type of consistency that was intact. The ground was covered. The ground was — there were pools of contamination on the grounds. There was oil on the grounds. This facility had become a dumping ground." MacDonald Testimony, Tr. at 586; *see also* Freestone Testimony, Tr. at 659; Yezzi Testimony, Tr. at 673; Government Exs. 86-54, 86-65 to 86-69, 86-84, 86-85. In response to the April 1976 spill, the USCG constructed a secondary lagoon (the "Coast Guard Lagoon") on the Northern portion of the site to contain spilled waste, instituted a recycling system that returned run off to the million gallon lagoon, and employed absorbent beams to collect oil from the surface of the adjacent creeks. *See* Government Exs. 85, 125.

In June of 1976, a second oil/chemical spill resulted from a combination of heavy rains, surface run-off, leaching from the lagoons, and spillage from the million gallon lagoon. The

EPA's testing confirmed a USCG report that the oil/chemical mixture included PCBs. *See* Government Ex. 85, at p. 2.

In December 1976, a third spill occurred after which the EPA took control of the site and built a tertiary lagoon (the "EPA lagoon") in a further attempt to contain run-off.

In March of 1977, the situation at PAS became critical, due in part to heavy rain and water flow from the spring thaw. All of the on-site lagoons were in danger of overflowing and/or bursting; the influx of water from the spring thaw was greater than PAS's discharge and/or diversionary capacity; and there was a high chance of continued precipitation. *See* Government Ex. 125. Testing conducted at the behest of the EPA indicated that the million gallon lagoon leaked and that the Coast Guard and EPA lagoons were potentially unstable.

The State of New York constructed a drainage ditch to divert uncontaminated surface run-off to Wine Creek. However, the pollutant saturated ground contaminated the ditch and further contaminated Wine Creek.

Reducing the level of the million gallon lagoon was a primary concern, *see* Government Ex. 015, because its leakage contributed to the hazardous run-off and oily spills. *See* Yezzi Testimony, Tr. at 672. (The million gallon lagoon overflowed and material continuously leaked through the lagoon's base and walls.); *see also* Government Ex. 62-004; 62-010; 62-011; 62-013; 62-030. The overflow and leakage from the lagoon flowed down through the barrel storage area prior to reaching the Coast Guard Lagoon. *See* MacDonald Testimony, Tr. at 610; Yezzi Testimony, Tr. at 688 ("Any material from the lagoon would come down what we, in this case, named the valley of the drums. You have the drums that were leaking and deteriorating and it would commingle with the waste coming down [from the million gallon] lagoon. We tried to put in some drainage ditches around to kind of control the — the spread of contamination [ ] along the surface of the site * * *.")

Portions of the ground at the site contained so much contamination that "walking on the site was [to some degree like walking] on a wet sponge, a very wet sponge. To the North side of the lagoon wall, the area there was very, very saturated with contaminated materials." Yezzi Testimony, Tr. at 678. Recovery wells dug to collect material flowing through the underground soil filled up rapidly with contaminated liquids. *See* Yezzi Testimony, Tr. at 690. Once the contaminants commingled, they could not be separated such that you could identify or treat an individual generator's waste. *See id.* at 691.

PAS abandoned the site in 1977, leaving approximately 12,000 drums of liquid waste and 100,000 gallons of bulk chemical waste on the site. Metals, VOCs, and PCBs were found in the lagoons and in drums removed from the site. Hazardous substances were released from the site into the soils, surface waters, stream sediments, and groundwater at and outside of the site. The results of testing at PAS indicated that contamination was significant and widespread but nonuniform across the site. The soils, surface water, and sediments at PAS were contaminated with VOCs[6] and metals[7] and the soil was contaminated with PCBs.[8] *See* Government Ex. 73. The

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[6] Surface water testing found concentrations of 0-150 parts per billion ("ppb") of 1,1 dichloroethane; 0-6.9 ppb of 1,1 dichloroethylene; 0-51 ppb of 1,1 trichloroethane, and 11-80 ppb of vinyl chloride. *See* Government Ex. 73, at Table 4-11. Results of sediment testing are listed in Table 4-12 of Government Exhibit 73. Soil sampling results can be found in Government Exhibit 77 Table 5-1.

[7] Metals found in soil samples included chromium (range 9.8-2.5 μ>>g/g); copper (range 8.4-64 μg/g); lead (range 2.9-9.1 μg/g); nickel (range 6.6-27 μg/g); and zinc (range 19-61 μg/g). *See* Government Ex. 73, at Table 4-10; *see also* Government Ex. 77, Table 5-5. Complete metal results for surface water are located in Table 4-11 of Government Exhibit 73. Results of sediment testing are listed in Table 4-12.

[8] PCB contamination in the soil ranged from 300-22,000 ppb. *See* Government Ex. 73, at Table 4-10; *see also* Government Ex. 77, at Table 5-4.

recorded values of PCBs and VOCs found in the soil "suggest that contamination was a result of a multitude of separate sources since no clear areal distribution pattern of contamination was discovered." *See* Government Ex. 73, at p. 4-16; *see also* Government Exs. 78, 79. The high level of metals found in the soil were generally consistent with both off-site samples and background soil levels for the eastern region of the United States. *See, e.g.,* Government Ex. 72, 78, and 79. Nickel was found in PAS's groundwater at concentrations that exceeded applicable clean-up and background levels. *See* Stipulated Fact No. 93; Government Ex. 79, at p. 8 (nickel appears to be the only site-related metal in the groundwater); Government Ex. 72, at pp. 58-60 (nickel was noteworthy because of its widespread appearance at high concentrations).

At least some of the 4,607,380 gallons of hazardous[9] liquid waste Alcan sent to PAS for treatment and disposal was stored in the million gallon lagoon. Alcan's waste constituted approximately twenty-five percent of the total volume of waste sent to PAS. *See* Lagoe Testimony, Tr. at 230. Numerous trial witnesses testified that the million gallon lagoon contained three distinct layers of waste: "a 10-14 in. deep 300,000 [gallon] viscous oily layer on top, a 3-5 ft. deep 500,000 [gallon] aqueous layer which contained an intense blood-red colored liquid with a high solids content, a Total Organic Carbon ("TOC") content of approximately 1.5% and high metal ion concentrations[10] and a bottom layer of semi-solid sludge." Government Ex. 125. Testing indicated that PCBs contaminated the lagoon's top layer. *See* Government Ex. 62-025; 62-033; 62-051; 62-052; and 62-136; 84; and 85, at p. 2.

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[9] The Court previously determined that Alcan's emulsion was hazardous within the meaning of CERCLA. *See Alcan,* 755 F. Supp. at 535.

[10] Tests of the aqueous layer indicated the presence of: .075 ppb PCB; 10 parts per million ("ppm") aluminum; 500 ppb cadmium; 20 ppb chromium; 30 ppb copper; 5 ppm lead; 70 ppm nickel and 25 ppm Zinc. *See* Government Ex. 125, Table II.

Hydrochloride gas, which may facilitate the breakdown of an emulsion, was also disposed of in the lagoon.

After taking control of PAS, the EPA contracted with Sealand Environmental Services to remove oil containing liquids from the million gallon lagoon and a 20,000 gallon pit. Sealand vacuumed off the oily PCB contaminated layer of the million gallon lagoon and sent the waste for incineration. After exploring numerous alternatives, the EPA brought in a Mobile Physical Chemical Treatment unit to treat the aqueous layer of the lagoon. *See* Government Ex. 62-052 (the only alternative left for treating liquid wastes in an environmentally acceptable manners was to pass the full contents through a column). The carbon filtration unit (the "Blue Magoo") used at PAS is a mobile physical chemical treatment system designed and built by Envirex in combination with the EPA. After conducting a "treatability study," where Envirex determined "what kinds of inoculant [the government] should use to settle out suspended solids and dissolved metals," and a "pilot plan study to determine what [the government's] carbon utilization rate [and loading] should be," the government processed waste water from the containment lagoons at PAS multiple times. *See* Freestone Testimony, Tr. at 652-53; *see also* Government Ex. 125. The government also used the Blue Magoo to treat the aqueous layer of the million gallon lagoon, which contained Alcan's emulsion. *Id.* The liquid was treated with a process "consisting of PH adjustment, flocculation, mixed-media filtration and carbon adsorption," Government Ex. 125, such that organics and suspended solids were removed. The organic materials included in the treated layer included oils. *Id.* Although the volume of organic materials in the treated layer led to a "very high carbon utilization rate," the treatment cleaned the water substantially. *Id.* at 656. This treatment was

part of a court ordered remedy at PAS.[11] *See* Government Ex. 63.

After the aqueous layer was treated, the sludge-like layer was removed and sent to a landfill site. Approximately fifty compressed gas cylinders were discovered in the lagoon when the sludge was partially removed. *See, e.g.,* Government Ex. 85, at p. 7. Before the cylinders were disposed of, they were examined, cleaned, and when necessary, emptied. Testing of the sludge layer revealed the presence of .50 ppm cadmium; 31.00 ppm chromium; 136.00 ppm lead; and numerous VOCs. *See* Government Ex. 91, at Table I; Government Ex. 98, at Table 3-3. The clean-up of PAS continued from 1978 through 1981. Underground storage tanks and drums filled with hazardous materials, including PCBs were discovered and removed.

In 1981, the surficial clean-up of PAS began. The clean-up included the demolition and disposal of on-site facilities, removal of approximately 8,000 remaining drums, and the drainage and disposal of approximately 80,000 gallons of liquid chemical waste from on-site bulk storage tanks. *See* Government Ex. 73, at 4-2. In 1982, oily waste continued to permeate PAS's soils and surface water.

In November of 1982, the New York State Department of Environmental Conservation ("DEC") hired URS Company to perform a complete site investigation, characterize the remaining contamination, recommend remedial actions, and

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[11] On August 26, 1977, a federal district court in Auburn, New York ordered, inter alia, that the EPA remove the liquid contents from the containment lagoons and process the material on-site through some sort of filtration system such that the EPA could safely discharge the effluent into Wine Creek. That court also ordered the EPA to remove as much liquid from the million gallon lagoon as necessary to eliminate overflow or leakage from the lagoon. *See* Government Ex. 63 (*United States v. Pollution Abatement Services of Oswego Inc., H. Willard Pierce and Jack Miller,* 77-CV-271), *see also* Government Ex. 85, at p. 4.

design the remedial program for PAS. Pollution reports filed by the EPA indicated that despite significant clean-up efforts, PAS still posed a serious environmental threat and in September 1983, PAS was placed on the National Priorities List. *See* 42 U.S.C. § 9605(a)(8)(b); 40 C.F.R. Part 300, Appendix B.

In 1984, the EPA issued a Record of Decision ("ROD") selecting the remedial action to be implemented at PAS. The ROD provided for: 1) containment of hazardous substances at PAS through construction of a soil bentonite slurry wall; 2) construction of an impermeable cap; 3) installation of a leachate collection system within the slurry wall; and d) installation of a groundwater recovery system and on-site treatment of the recovered leachate and groundwater. *See* Government Ex. 84. By 1986, the DEC completed all of its remedial activities other than the on-site treatment system. The EPA and DEC continued to monitor PAS and in 1990, the EPA issued an administrative order on consent to PAS's potentially responsible parties ("PRPs"), other than Alcan, to perform a supplemental remedial investigation. In September 1993, (after considerable work had been done) the EPA issued a supplemental ROD for PAS to address outside contamination. A group of PRPs conducted a Supplemental Pre-Remedial Design Study at PAS. On August 10, 1998, the Court approved a Consent Decree between the EPA and 80 PRPs, which required the non-*de minimis* PRPs[12] to implement the remedy in the Supplemental ROD and reimburse the EPA for $963,300 in past costs and the first $500,000 of future response costs. The *de minimis* PRPs paid the EPA their volumetric share of past costs, totaling $86,269, and agreed to pay their volumetric share of future work and response costs plus a premium.

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[12] The EPA determined that those PRPs who sent a total waste volume of less than 1% to PAS, provided that the waste was not significantly more toxic than other waste sent to the site, were *de minimis* PRPs.

In September of 1997, the EPA issued a second supplemental ROD for PAS to address PCB contamination in adjacent creeks and wetlands. The ROD recommended no further action to remediate the contamination other than long term monitoring of PCB levels.

C. Fulton Terminals

From 1972-1977, Fulton Terminals, Inc., a subsidiary of PAS, operated a staging and storage area for materials awaiting incineration at PAS ("Fulton"). Fulton consists of approximately 1.6 acres in a light industrial/commercial area of the City of Fulton in Oswego County, New York. The Fulton Site housed five above-ground storage tanks, one partially buried storage tank, and two below-ground storage tanks. *See* Appendix 2. Essentially, Fulton housed waste that PAS could not accept because it was over capacity. The contamination at Fulton was due primarily to leaks in the storage tanks. *See* Rotola Testimony.

The Court previously determined that Alcan's waste emulsion was stored at Fulton and that the emulsion was hazardous within the meaning of CERCLA. *See Alcan,* 1996 WL 637559, at *3, *15. The parties have stipulated that Alcan's waste was stored in Tank One, which was an above-ground tank located in the site's South West corner. *See* Appendix 2. Although sample analyses indicated significant PCB contamination at Fulton, tests of the waste remaining in Tank One found less than .01 μg/g PCB. *See* Rotola Testimony; Government Ex. 98, Table 3-1; *see also* Government Exs. 88-90. Tests of the soil and groundwater near Tank One revealed VOC and metal contamination. VOC contamination included vinyl chloride, TCA, and 1,1 dichloroethene, while heavy metal contamination included cadmium, lead, nickel, and chromium. *See* Rotola Testimony. The metal contamination may have been naturally occurring as the sample results generally fell within typical values for soil reported in eastern regions of the country. *See id.; see also*

Government Exs. 100, 101 (finding that in general, on-site metal findings are "well within typical values for the eastern region."), and 102. The EPA listed both nickel and vinyl chloride as "contaminants of concern" at Fulton. *See* Rotola Testimony.

D. Possible Constituents of Alcan's Emulsion

From 1970-1977, Alcan sent 4,607,380 gallons of used emulsion to PAS. Between August 1972 and January 1973, Alcan shipped approximately 70,000 gallons of emulsion to Fulton. No samples of Alcan's emulsion were taken prior to its disposal.[13] Accordingly, the parties and the Court looked to samples of Alcan's emulsion taken between 1981 and 1989; Alcan's use and purchase of materials in its Oswego facility; the contamination of Alcan's facility; and the results of government samples taken from PAS, Fulton, Butler Tunnel,[14] and Sealand[15]

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[13] Alcan employee David Lagoe offered a "souvenir sample" of emulsion allegedly taken in 1978 as evidence that Alcan's emulsion did not contain PCBs at this time. Lagoe testified that he retained this sample as a souvenir from the start up of the ultra filtration process. Lagoe further testified that he retained the keepsake in his desk until the issue of whether Alcan's emulsion contained PCBs in the early 1970s arose in this litigation. *See* Lagoe Testimony, Tr. at 116-117. Testing of the sample conducted by O'Brien & Gere found less than 1,000 parts per billion of PCBs (the detection limit was 1,000 ppb). *See* Lagoe Testimony, Tr. at 117; Alcan Ex. A 8.

Lagoe testified that the emulsion in the sample did not look any different than that used at the plant today.

Significantly, Lagoe did not have the sample analyzed in 1981 when tests first indicated that PCBs may have contaminated the hot roll system. Further, Lagoe did not have the sample analyzed in 1983 when Alcan began an in-house investigation, including extensive testing of the hot mill system to determine the source and extent of PCB contamination, to be discussed later. Instead, Lagoe sent the sample for analysis in 1985 after he was aware that Alcan would likely be a defendant in a number of CERCLA lawsuits.

Based on this information, the Court finds that the sample lacks credibility and assigns it no evidentiary weight.

[14] In the late 1970s, approximately 2,000,000 gallons of oily waste was disposed of at the Butler Tunnel Site. Alcan's used oil emulsion accounted

to determine the likely constituents of Alcan's emulsion. Samples from Butler Tunnel and Sealand are relevant because Alcan sent waste emulsion to these sites in the late 1970s and early 1980s. Because no major changes occurred in Alcan's hot rolling process between 1970 and 1989, the waste sent to Butler Tunnel and Sealand is representative of that sent to PAS and Fulton.

1. Metals

This Court has previously determined, and the parties now stipulate, that, in addition to oil and water, Alcan's emulsion contained aluminum, cadmium, chromium, copper, lead, and zinc. The metal in the emulsion resulted from fragments or "fines" of the ingot breaking away into the emulsion during the rolling process. Impurities in the aluminum ingot included nickel. There is no scientific reason to expect that nickel would behave differently from the other metals in the ingot. In other words, if the other metals made their way into the emulsion

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for approximately 35,000 gallons of this waste. Because the Court will recount only those details necessary for its analysis, further details regarding Alcan's involvement in the Butler Tunnel site can be found at *Alcan-Butler*, 964 F.2d 252.

[15] Sealand operated from 1978-1980. *See* Nunes Testimony, Tr. at 335. The site became an environmental problem in 1980 when waste contaminated an adjacent wetland area. The DEC determined that improper mixing of waste and soil in the land spread area led to hazardous run-off. Alcan sent approximately two million gallons of waste oil emulsion for disposal via land spread at Sealand. This represents approximately seventy-two percent of the total waste that was land spread at the site. Waste sent for land spreading was either placed directly into the land spreader or into a storage tank to await disposal. *See* Nunes Testimony, Tr. at 344. Tests of Sealand's land spread area and storage tank indicated the presence of PCBs. Insignificant levels of VOCs were found in the soil and no detectable levels of VOCs were identified in the storage tank. *See* Government Ex. 115, at 4-3; Nunes Testimony, Tr. at 352.

Alcan's waste was also disposed of in Sealand's disposal cell area where tests revealed relatively high concentrations of VOCS, including TCA, DCA, and vinyl chloride. *See* Government Ex. 115, Table 3-2.

during the rolling process, there is no reason to expect that nickel would not have done the same thing. *See* Meyer Testimony, Tr. at 758; Driscoll. Alcan had the opportunity to test its emulsion for nickel, yet offered no evidence other than the absence of testing by the government to contradict testimony suggesting that the emulsion contained nickel. The Court is not aware of any sampling results that indicate nickel was not in the emulsion. On the basis of Dr. Meyer's testimony and the opinion of the Court appointed expert, the Court finds that it is more likely than not that Alcan's waste emulsion contained nickel. *See id.*

2. PCBs

The government argued that the Court should find that PCBs contaminated Alcan's emulsion in the 1970s, when Fulton and PAS were in operation, based on the totality of the circumstances. This argument works backwards from Alcan's discovery of PCB contamination in its Oswego Plant in 1981 and is supported by the temporal circumstances surrounding the use and availability of PCBs and the extent of the contamination at Alcan's plant. Alcan, on the other hand, argued that the emulsion sent to PAS and Fulton did not contain PCBs. Alcan's argument is supported by the testing for PCBs conducted at PAS, Fulton, and Butler Tunnel and the absence of sampling data prior to 1981.

The evidence shows that Alcan purchased hydraulic fluids and lubricants containing PCBs in the late 1960s and 1970 from Monsanto and E.F. Houghton & Co. Alcan used these fluids in the casting pits in the remelt area and in transformers in various area of the Oswego plant, including the recycling center, remelt area, the homogenizing furnaces, and the cold mill. Monsanto, the sole domestic manufacturer of PCBs, ceased production of PCB containing fluids in 1972 and, thus, PCB fluids were not commercially available in the United States after this date. *See* Kraft Testimony, Tr. at 317.

In October of 1976, Congress passed the Toxic Substances Control Act ("TSCA"), 15 U.S.C. §§ 2601 *et seq.* and the EPA promulgated implementing regulations, which applied to all types of hydraulic equipment. The regulations allowed continued use and topping off of systems containing less than 50 ppm PCBs through 1984; required the draining of systems containing more than 50 ppm PCBs; and prohibited the introduction of any PCB fluids in new hydraulic systems after 1979. *See* Kraft Testimony, Tr. at 315-16. Because PCB containing hydraulic fluids were not commercially available domestically after 1972 and the TSCA and its implementing regulations strictly limited the percentage of PCBs in hydraulic equipment, the evidence suggests that PCB concentration in hydraulic equipment was lower in the 1980s than in the 1970s. *See* Kraft Testimony. In fact, in the early 1980s, the EPA conducted testing of industrial hydraulic equipment to ensure compliance with the TSCA and the highest concentrations discovered measured around 3,000 ppm. *See id.*

The evidence further suggests that Alcan complied with the TSCA and that an internal policy prohibiting the purchase of PCB materials or things known to contain PCBs curtailed Alcan's use of PCBs. *See* Lagoe Testimony, Tr. at 183. Thus, the Court finds that the concentration of PCBs in Alcan's hydraulic equipment mimicked that of industry in general insofar as the percentage of PCBs in the equipment was lower in the 1980s than the 1970s. *See* Kraft Testimony, Tr. at 324. The results of internal testing of Alcan's hydraulic equipment, which found minimal levels of contamination in two units in 1983 (2-3 ppm) and no contamination in 1987, support this conclusion. *See* Government Ex. 21.

In June of 1980, the DEC detected PCBs in Alcan's processed water discharge outfall 002. *See* Government Exs. 3, 6, Lagoe Testimony, Tr. at 188. Alcan subsequently investigated the source of the PCB contamination under DEC's supervision and discovered contamination in the ponds and

wetlands the water passed through en route to outfall 002. Alcan traced this contamination to the use of PCB hydraulic oils in the remelt operation in the late 1960s and 1970. *See* Lagoe Testimony, Tr. at 244.

Despite the unavailability of PCB fluids and strict guidelines on PCB use, in-house testing of Alcan's waste emulsion conducted in 1981 showed PCB contamination.[16] In 1983, testing revealed PCB contamination (1 ppm to 45 ppm range) throughout Alcan's entire waste oil system. *See* Government Ex. 20.[17] The waste oil contamination resulted from contamination in the concrete below the hot roll mill — PCBs residing in the concrete leached into the emulsion.[18] *See, e.g.*, Lagoe Testimony, Tr. at 390-91.

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[16] In 1981, tests found from 9.7 to 14.6 ppm of PCBs in the Reclaimed oil and 8.2 ppm of PCBs in the ultra filtration concentrate. *See* Government Exs. 8, 13.

[17] Tests of the hot mill sludge found PCB contamination: October 1986—29 ppm; October 1987—350 ppm. *See* Government Ex. 20; *see also* Government Ex. 16.

[18] In 1987, Alcan did an in-house study of the extent of contamination, analyzing approximately 100 samples of sludge and concrete throughout the hot line. The results of this analysis indicated that PCBs had contaminated the concrete floors and walls beneath the hot line. The roll table floor contained the following levels of PCBs: between the beginning of the hot line and the Edger ("Section A") there was an average PCB concentration of 23,425 ppm (range < 15.0-51,000 ppm); the area between the edger and the 120 inch mill ("Section B") had an average PCB concentration of 960 ppm (range 410-2,000 ppm); the area between the 120 inch mill and the 8 inch shear ("Section C") had an average PCB concentration of 12,589 ppm (range 155-28,000 ppm); the area between the 8 inch shear and the one and one half inch shear ("Section D") had an average PCB concentration of 24,944 ppm (Range 1,200-64,000 ppm); and the area between the one and one half inch shear and the 100 inch mill ("Section E") had an average PCB concentration of 318 ppm (range < 15.0-630 ppm). The side walls contained the following concentrations of PCBs: Section A had an average of 9,375 ppm (range 7,000-13,000 ppm); Section B had an average of 603 ppm (range 210-910 ppm); Section C had an average of 3,650 ppm (range 3,200-4,100 ppm); and Section D had an average of 14,000 ppm (range 2,000-29,000 ppm). *See*

Between 1981 and 1987, Alcan conducted extensive in-house testing to determine the source and extent of PCB contamination and in 1988, Alcan solicited bids for a PCB remediation project. Testing of the contaminated area revealed extensive contamination in the concrete walls and floor of the hot line. O'Brien and Gere ("OBG") conducted tests of the concrete up to a depth of 3 inches. The parties stipulate that the tests found consistent PCB contamination at depths up to three inches in Sections C and D[19] of the roll table. *See* Government Ex. 23. Moreover, the concrete samples from Section D contained between 1,200 and 64,000 ppm PCBs and the average concentration of PCB contamination in the roll trench floor was 14,944 ppm PCBs. *See id.* Samples of the walls of the roll trench table found an average of 10,142 ppm PCBs. *See id.* Further PCB contamination was found on the roof of the hot line and on a crane located 30 to 45 feet above the hot line. The parties stipulated that PCB contamination extended to the height of the ceiling and crane because "fugitive dusts, mists, and liquids containing PCBs migrated from the Hot Line to these areas above the Hot Line." Stipulated Fact No. 37. This data reveals extensive and widespread contamination in the hot roll mill that can only be explained by extensive use and/or spillage of PCB containing materials. According to an expert witness, approximately 100 to 200 gallons of PCB contaminated fluid would need to have been spilled to account for the contamination in the hot line's floor alone. *See* Connolly Testimony, Tr. at 474; Lagoe Testimony, Tr. at 185.

In this litigation, Alcan maintained that the in-house investigation did not conclusively determine the source of the

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Government Ex. 23. Note that walls or barriers separated the sumps underneath different portions of the hot roll mill such that Section A is separated from Section D and Section D is separated from Section E. *See* Connolly Testimony, Tr. at 476; *see also* Appendix 3, which contains a diagram of hot mill's sections.

[19] For a diagram of the roll table, *see* Appendix 3.

concrete's contamination. Alcan theorized that the contamination may have resulted from a spill from hydraulic equipment in 1983 near Section E of the hot mill as depicted in Appendix 3. However, Alcan did not report any spills of PCBs to New York State or the EPA in the 1980s or warn workers that there may have been a PCB spill during this time period. *See* Lagoe Testimony, Tr. at 184. Moreover, tests indicate that Alcan's emulsion was contaminated in 1981, two years before the possible spill, *see* Government Exs. 8, 13, and that the relative concentration of PCB contamination in Section E was lower than Section A.[20] *See* Connolly Testimony, Tr. at 477. Furthermore, in 1988, Alcan did not explain this theory of contamination to potential bidders on the remediation project. Instead, Alcan told the bidders that "the probable source of contamination was its historical use of a PCB fluid on the roll table system."[21] *See* Government Ex. 23; Government Ex. 25.

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[20] For details of these calculations see Connolly Testimony, Tr. at 477-82.

[21] In a summary of information provided to bidders, OBG employee Pelis wrote:

> By way of general background, Alcan has had a recurring problem with PCB showing up in their waste oils and various other material in the Hot Line area for several years. Last fall they finally discovered where the probable source was within the plant. It was suspected that the concrete walls and floor underlaying the roll table were impregnated with PCB contaminated oils as a result of the weekly cleaning of the mill rollers with a "heat resistant" oil back in the 1960's and 1970's. The plant conducted an in-house study of the extent of the contamination through an analysis of over 100 samples of sludge and concrete throughout the Hot Line.
>
> The results of the analysis confirmed Alcan's suspicions. The highest concentrations were found between the mills where there is not a constant flushing action of coolant during production. In these areas the floor is cleaned only once per year during the annual two week shut down. Government Ex. 23. Pelis obtained this information from Alcan employees. *See* Pelis Testimony, Tr. at 404.

The Court relied on this information despite Pelis's statement at trial that he

Employees or representatives of Alcan repeated this theory to bidders. *See* Government Ex. 25. Moreover, Lagoe testified that, during the relevant time period, the roll table was cleaned with emory paper and lubricated with oil once a week. *See* Lagoe Testimony, Tr. at 153. Significantly, Lagoe, the only Alcan witness to testify at trial, did not have personal knowledge as to what kind of oil was used to lubricate the roll table; Lagoe was not in charge of environmental compliance in the 1970s, did not supervise the cleaning of the roll table, and did not have an office in the direct vicinity of the table. *See* Lagoe Testimony.

In combination with the extensive contamination of the concrete in the hot roll mill, the facts that: (1) Monsanto stopped producing PCB hydraulic oils in 1972; (2) the EPA implemented the TSCA regulations severely limiting and eventually prohibiting the use of PCBs in 1976; (3) testing identified significant levels of PCBs in Alcan's waste oil and ultra filtration concentrate in 1981; (4) only two pieces of Alcan's hydraulic equipment had minimal PCB contamination in 1983; (5) Alcan did not report any PCB spills to government agencies or its employees in the 1980s; (6) the relative concentration of PCB contamination in Section E was lower than Section A; and (7) Alcan explained the probable source of contamination to bidders on the remediation project as historical use of PCB oils on the rolling table, the Court finds it more likely than not that Alcan's theory that the concrete became contaminated because of a possible contractor spill by the 100 inch roll mill in 1983 is not credible and that the

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would make this sort of information up to make OBG look better to Alcan. *See id.* at 410. Given Pelis's previous testimony that the information regarding historical use of PCBs on the roll table must have come from Alcan employees, *see id.* at 404-06, the Court finds Pelis's attempt to discredit his official writing unpersuasive. OBG also identified historical use of PCB oils on the hot mill line in their final bid proposal. *See* Government Ex. 24. Significantly, Alcan accepted this bid.

historical use of PCBs on the hot roll line caused the PCB contamination.

Although there is evidence of significant contamination at Alcan's facility, testing at Fulton, PAS, and Butler Tunnel did not identify significant contamination of PCBs in the areas where Alcan's waste was deposited. This testing, however, does not necessitate a conclusion that Alcan's waste did not contain PCBs.[22] A number of factors including, but not limited to, the variability of waste at the sites, conditions of the sites, material tested, and the number of samples taken impact the test results' value. For example, only one of many samples taken at Butler Tunnel detected PCBs (.052 parts per billion), *see* Towle Testimony, Tr. at 556; Government Ex. 109. However, neither the actual waste disposed of at Butler Tunnel nor the oily discharge compelling clean-up action were tested for PCBs.

> There [were] probably a number of reasons why there [were] so few positive detections for PCB. Among them and most important would be that most of the samples are being collected at a time when there are not currently wastes being discharged from the Butler Tunnel.
>
> Second, there is a large amount of dilution that's occurring, so whatever residual wastes that are left behind are being diluted with a lot of uncontaminated mine water also coming out of the Butler mine tunnel. And additionally, the PCB detection was of a water sample rather than an oil or waste sample, and PCBs are not readily soluble in water.

Towle Testimony, Tr. at 556-57. In other words, the tests conducted at Butler Tunnel tested water discharge rather than the oily discharge or oily water. The fact that PCBs not readily soluble in water is not disputed. *See, e.g.*, Lagoe Testimony, Tr.

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[22] The concerns regarding testing at the superfund sites are equally applicable to the findings regarding metals and VOCs.

at 219 (slightly soluble); Towle Testimony, Tr. at 556-57. Accordingly, if PCBs were present in the oily discharge or waste, one would expect the majority to travel with the oily waste rather than remain in the water.

Because of limits on testing and the testing conditions at PAS, it is equally problematic to conclude that the absence of detection of PCBs at certain locations, specifically the middle aqueous layer and bottom sludge-like layer of the million gallon lagoon, indicates the complete absence of PCBs. Early testing of the Lagoon did not include tests for PCBs because a standard procedure was not available to test for PCBs in a "mixed-organic/oil like matrix." *See* Government Ex. 119. Later testing, however, indicated that PCBs contaminated the top oily layer of waste. *See, e.g.,* Government Ex. 62. The fact that significant levels of PCBs were found in the top oily layer of the million gallon lagoon conclusively establishes that PCBs were present in the lagoon, despite the fact that they were not evenly distributed throughout the waste layers. Accordingly, it would be illogical to infer from tests of the middle and bottom layer of the lagoon, which did not find PCBs, that none of the waste deposited in the lagoon contained PCBs. Furthermore, based on the considerable variability of the waste, discussed below, and testimony regarding the condition of PAS in general, it is evident that no single generator's waste remained in isolated or even recognizable form after disposal. Thus, the fact that Alcan initially disposed of liquid in an emulsion form does not mean that Alcan's waste constituted only the middle layer of the lagoon. In fact, as discussed in Section II(E), it is highly unlikely that Alcan's waste retained its emulsion form after disposal and, thus, it is more likely than not that some of Alcan's waste resided in the PCB contaminated oily layer of the lagoon.

The considerable variability in the lagoon's layers casts further doubt on the conclusiveness of PCB testing. Numerous witnesses testified that the contents of the million gallon lagoon

had substantial variability both within and without the three identifiable layers of waste. *See* Freestone Testimony, Tr. at 651 ("[T]he sludge had variability, depending upon where you sampled."); Yezzi Testimony, Tr. at 684-85; and MacDonald Testimony, Tr. at 584. The high variability of wastes suggests that different findings may have resulted at different sample locations.

At Fulton, Alcan's waste was disposed of in Tank One. At the time of the clean-up and testing, however, all that remained in Tank One was a sludge like material, which Potentially Responsible Parties ("PRPs") eventually removed with shovels. While no PCBs were found in the sludge-like material remaining in the bottom of the tank, Alcan's emulsion was not present either. Neither Alcan nor the government suggests that in the face of evidence that Alcan disposed of emulsion and a stipulation that this emulsion was stored in Tank One, the Court should conclude that the absence of the emulsion at the time of testing suggests that the emulsion was never there. Accordingly, the Court will not conclude based on the absence of PCBs in Tank One's sludge that the tank never contained PCBs.

Seventeen of forty soil samples taken from the land spread area at Sealand tested positive for the presence of PCBs,[23] as did

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[23] All but one of the samples had a J qualifier. Generally, a J qualifier indicates that the concentration given is estimated. *See* Nunes Testimony, Tr. at 339; Government Ex. 135. Nunes testified that in this case, J qualifiers were assigned to data when PCBs were detected between the specified detection limit and the contract required quantitation limit ("CRQL"). *See* Nunes Testimony, Tr. at 341. The CRQL is the level at which one can reasonably be assured that the compound exists at that detected level. The detection limit, which is lower than the CRQL, is a level where it is possible to reliably identify that a substance is present but cannot reliably identify the concentration at which the substance is present. *See* Nunes Testimony, Tr. at 340. The Court finds J qualified data to be a reliable indication that a substance had been positively identified. *See, e.g., Cooper Indust., Inc. v. Agway, Inc.*, 1996 WL 550128, at *15 (N.D.N.Y. Sept. 23, 1996).

two samples from the storage tank. *See* Government Ex. 115. As discussed above, Alcan's waste emulsion constituted seventy-two percent of the material land spread at Sealand. Contrary to the sampling data at Butler Tunnel and Fulton, this data tends to suggest that Alcan's emulsion contained PCBs.

Based on the significant PCB contamination of Alcan's hot rolling line that resulted from the historical use of PCB fluid on the rolling table and the facts that availability and use of PCB fluid was strictly curtailed by the mid-1970s and PCBs in the concrete leached into Alcan's waste emulsion, the Court finds that the government proved, by a preponderance of the evidence, that PCBs contaminated the emulsion Alcan sent to PAS and Fulton. *See* Meyer Testimony, Tr. at 771.

3. VOCs

The government also contends that, at the time Alcan's emulsion was disposed of at PAS and Fulton, it was contaminated with TCA. Again, there are no samples of Alcan's emulsion from this period, so the parties and the Court looked to circumstantial evidence to determine whether Alcan's emulsion contained TCA. The government argued that, based on Alcan's admitted use and purchase of TCA, the TCA contamination in the hot mill area at Alcan's Oswego plant, the EPA's 1989 tests finding TCA in the emulsion, and the presence of TCA and its biological breakdown products at PAS, Fulton, Sealand and Butler Tunnel, the Court should find that TCA was present in the emulsion disposed of at PAS and Fulton. *See, e.g.,* Meyer Testimony. Alcan responds that because TCA is highly volatile, it would have been impossible for TCA to get from the scalping area or plate mill, where they conceded use, into the emulsion. *See* Lagoe Testimony, Tr. at 63-64. Alcan further argued that the 1989 testing data is unreliable because the pages relating to TCA had "do not use" and the data had hand written changes and/or J qualifiers. *See id.* at 66-68.

Alcan used TCA as a cleaner and degreaser in the scalping area and plate mill at the Oswego Plant. *See* Lagoe Testimony, Tr. at 51 -52. Alcan also used TCA to clean the rolls in the gear box on the plate line. Alcan purchased TCA from Ashland Chemical Company. The use of TCA led to contamination of ground water at the plant. Alcan believes that the contamination resulted from a leaking sump adjacent to a scalper where TCA was used for cleaning purposes. *See* Lagoe Testimony, Tr. at 253. In 1978, Alcan had a TCA limitation on outfall 001, which the DEC implemented after finding TCA in the outfall. Outfall 001 included a waste stream from the hot line. *See* Government Ex. 2; Lagoe Testimony, Tr. at 197.

Over time, TCA biodegrades. The biological breakdown products of TCA are 1,1 dichloroethane ("DCA"), 1,1 dichloroethylene ("DCE"), vinyl chloride, and chloroethane. *See* Government Ex. 128, at p. 363; Meyer Testimony, Tr. at 765-70.

Tests conducted in 1989 identified VOCs, including TCA and two or three of TCA's biological breakdown products DCA, chloroethane, and 1,1 Dichloroethene[24] in Alcan's emulsion. *See* Government Ex. 36; Meyer Testimony, Tr. at 770. The fourth breakdown product, vinyl chloride, boils at a low temperature and, thus, would likely evaporate and escape into the atmosphere. *See* Meyer Testimony, Tr. at 770.

Sampling at Butler Tunnel,[25] Fulton,[26] and PAS indicated the presence of TCA and its biological breakdown products.

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[24] The Court notes that Government Exhibit 36, lists 1,1 dichloroethylene rather than 1,1 dichloroethene as one of TCA's four biological breakdown products. If the list of biological breakdown products in this exhibit are correct then, contrary to Meyer's testimony, the 1989 tests identified two of the four breakdown products in Alcan's emulsion.

[25] TCA, DCE, and DCA were detected in the Butler Tunnel mine water near the area wastes were disposed. TCA was also detected in the air circulating in the mine shaft. *See* Towle Testimony, Tr. at 557-58. Tests of the discharge at Butler Tunnel did not test the actual waste discharge, but

Sampling of the land spread area and storage tank at Sealand, however, did not find detectable concentrations of TCA. *See* Lagoe Testimony, Tr. at 68; Nunes Testimony.

Finally, the EPA's sampling in 1989 indicated the presence of TCA in Alcan's emulsion. Alcan argued that this data is unreliable because data pages contain hand written changes, J qualifiers, and/or state "do not use."[27] *See* Government Ex. 36. Kathleen Donnelly, the EPA employee who prepared the data in question, explained that the EPA's standard operating procedures require all usable data in a report to be consolidated on one page. Thus, the usable data on sheets that read "do not read" was consolidated on a separate page. The data used in the report was "QA/QC'd," which means that all of the EPA's "standard operating procedures for insuring that the samples were analyzed and reviewed in accordance with the highest standards to make sure that the data [reported] is accurate." *Id.* at 288. The J qualifier on data does not indicate that it is suspect, but that a positively identified substance has an estimated concentration. J qualified results are reliable and usable. *See* Government Ex. 135; *see also Cooper,* 1996 WL 550128, at *15.

Assuming all of the facts asserted by the government to be true, such that the 1989 tests reliably identified TCA and its biological breakdown products in Alcan's emulsion; TCA and its breakdown products were detected at all four sites under

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subsequent water discharge. *Id.* at 556. Government Exhibits 105, 106, 109, and 110 set forth analytical data with respect to VOC testing.

[26] Sampling of ground water in a monitoring well near Tank One detected TCA, vinyl chloride, and 1,1 dichloroethene. *See* Government Ex. 98. Tests of the sludge in Tank One also detected 1,1 trichloroethane, DCA, and 1,1 dichloroethene. *See* Government Ex. 91, Table I.

[27] Alcan had "split," or duplicate, samples of those tested by the EPA. *See* Donnelly Testimony, Tr. at 280. Alcan had these samples analyzed by an outside laboratory, *see* Lagoe Testimony, Tr. at 191, but did not release the results of any testing.

review; Alcan used TCA near the hot rolling line during the relevant period; and Alcan's groundwater and outflow 001 (which connects to the hot roll line) were contaminated with TCA during the relevant time periods, the Court cannot conclude that it is more likely than not that the emulsion sent to PAS and Fulton was contaminated with TCA. Unlike the evidence presented regarding PCBs, which proved that concrete at Alcan's plant must have been contaminated by PCBs in the early 1970s and that this contamination leached into the waste emulsion and, thus, provided both a temporal and physical link between the PCB contamination and Alcan's plant and the waste emulsion sent to PAS and Fulton, the evidence did not adequately link the TCA contamination, temporally or physically, with the emulsion sent to PAS and Fulton.

E. Physical Characteristics and Interaction of Alcan's Emulsion

The emulsion Alcan sent to PAS and Fulton consisted of approximately 95% deionized mineral water and 5% Farbest mineral oil. The addition of an unknown emulsifying agent, which reduced the surface tension or interfacial tensions between the molecules of water and oil, created the emulsion.

An "emulsion" is defined as "a suspension of small globules of one liquid in a second liquid with which the first will not mix, as milk fats in milk." WEBSTER'S II NEW RIVERSIDE DICTIONARY (1994). In other words, in emulsion form, oil and water exist in a single phase whereas in a simple mixture oil and water exist in separate phases. *See* Meyer Testimony, Tr. at 799. Thus, emulsions have different physical properties than either water or oil alone or a simple oil and water mixture. *Id.* To some degree, both water and oil dissolve hazardous substances. Some substances are more soluble in water than oil and some substances, like PCBs and VOCs, are more soluble in oil than water. An emulsion has the ability to dissolve larger concentrations of substances than either oil or water alone or a simple oil and water mixture and, thus, an emulsion increases

the migratory potential of hazardous substances more than either water or oil. *See* Meyer Testimony, Tr. at 784; *see also* Government Ex. 129; Freestone Testimony, Tr. at 650 ("The normal solubility of most organic substances in water can be measured in the parts per billion and sometimes low parts per million range. For example, Fran Brezenski's data for the Coast Guard lagoon shows various concentrations of contaminants in the parts per billion range. However, the intermediate layer in the main lagoon had a chemical bouillabaisse and such a high concentration of organic materials, in the 1 1/2 percent category. That's 10,000 to 15,000 parts per million. The only way you're going to get that much organic material to stay in water is with some sort of mechanical or chemical emulsion process.").

Unlike oil, an emulsion does not float on top of water. Instead, when added to water, the emulsion will suspend and form a layer below the surface. However, an emulsion will not remain in its emulsion phase forever; instead, it eventually breaks down into its individual components. *See* Meyer Testimony, Tr. at 799; Driscoll. Exposure to the environment, heat, and acid increase the rate at which an emulsion breaks down. *See* Meyer Testimony, Tr. at 799; Driscoll. Therefore, it is unlikely that all of Alcan's emulsion remained in the emulsion phase after disposal. Accordingly, the Court finds that it is more likely than not that Alcan's waste consisted of oil, water, and the water and oil emulsion.

III. Conclusions of Law

A. Legal Standard

In the first stage of this action, the liability phase, the government had the burden of proving, by a preponderance of the evidence, that Alcan was liable under CERCLA. *See infra* note 2. The Court previously found that the government could introduce evidence at trial to prove that Alcan's emulsion

contained PCBs, VOCs, and nickel.[28] Pursuant to the standard outlined by the Second Circuit, if the government proved by a preponderance of the evidence that Alcan's emulsion contained PCBs, VOCs, or above background levels of metals, Alcan could no longer escape liability altogether. *See Alcan,* 990 F.2d at 722 ("[C]ausation * * * is reintroduced only to permit a defendant to escape payment where its pollutants did not contribute more than background contamination and also cannot concentrate."). As discussed above, after careful consideration of the evidence presented at trial the Court found that the government proved that Alcan's emulsion contained PCBs, which are not naturally occurring substances that have "background levels." Therefore, Alcan does not fit within the special category of defendants who can escape all liability under CERCLA.

Additionally, Alcan is not able to escape all liability because the Court found that Alcan's emulsion contained nickel, which was detected at above background levels at both PAS and Fulton. This finding, combined with the expert testimony of Dr. Meyer and Dr. Driscoll, suggests that the metals in Alcan's emulsion can and, in this case, did concentrate. *See* Meyer Testimony; Driscoll letter. Alcan did not negate this finding or present evidence sufficient to prove that the nickel in its emulsion can not concentrate.

Although Alcan cannot escape liability altogether, it can limit its liability by showing that the harm at PAS and Fulton was divisible — that is, it contributed, at most, to a divisible portion of the harm and that there is a reasonable basis to apportion liability for this harm. *See Alcan,* 990 F.2d at 722. To make this showing, Alcan "may present evidence relevant to establishing divisibility of harm, such as, proof disclosing the relative toxicity, migratory potential, degree of migration, and synergistic capacities of the hazardous substances at the site."

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[28] Alcan continues to object to this decision.

Id. To satisfy its burden of proof, Alcan must look at the potential effects of its emulsion as a whole rather than the individual components of the emulsion. *Id.; see also Alcan,* 1997 WL 727506, at *4 n. 5; *United States v. Alcan Aluminum Corp.,* 892 F. Supp. 648 (1995), *aff'd, United States v. Alcan Aluminum Corp.,* 96 F.3d 1434 (1996), *cert. denied,* 521 U.S. 1103 (1997). Thus, as previously recognized by this Court, Alcan "cannot succeed by arguing * * * that it avoids liability simply because its metals [individually] are below background levels." *Alcan,* 1997 WL 727506, at *4 n. 5 (internal citations omitted).

Alcan attacked this divisibility standard claiming that it is inconsistent with scientific principles, procedural and substantive due process, and Fed. R. Evid. 702. Alcan argued that it can establish divisibility by comparing the relative toxicity of its emulsion's individual components with the relative toxicity of other hazardous substances disposed of at PAS and Fulton. *See* Joint Pretrial Stipulation at 30. This argument is based on the theory that one cannot scientifically evaluate the emulsion as a whole, but rather one must "look at the chemical impact of each of the individually chemically distinct parts." Tr. of Sept. 10, 1999 proceedings at p. 12. On September 13, 1999, the Court denied Alcan's pre-trial motion to strike the legal standard set forth by the Second Circuit and replace it with Alcan's proposed standard; the Court will not rehash the issue here. *See id.* It is sufficient to note, as the Third Circuit did when faced with the same argument, that:

> the government responds to 'releases' that threaten environmental safety. Thus, it is the release alone that must justify the response costs, not the particular waste generated by one given defendant. Here, there is no question but that a release occurred. Second, the fact that a single generator's waste would not in itself justify a response is irrelevant in the multi-generator context, as this would permit a generator to escape liability

> where the amount of harm it engendered to the environment was minimal, though it was significant when added to other generator's waste.

Alcan-Butler, 964 F.2d at 264. Accordingly, in determining whether Alcan proved divisibility, the Court will apply the standard set forth by the Second and Third Circuits, which requires Alcan to analyze its emulsion as a whole rather than focusing on the individual constituents of the emulsion.

B. Divisibility

The burden on Alcan to show divisibility is substantial. *See Alcan-Butler,* 964 F.2d at 269. Courts are well aware that "[t]he practical effect of placing the burden on defendants [to prove divisibility] has been that responsible parties rarely escape joint and several liability. [C]ourts regularly [find] that where wastes of varying (and unknown) degrees of toxicity and migratory potential commingle, it simply is impossible to determine the amount of environmental harm caused by each party." *See O'Neil v. Picillo,* 883 F.2d 176, 178-79 (1st Cir.), *cert. denied,* 493 U.S. 1071 (1998) (citing *United States v. Chem-Dyne,* 572 F. Supp. at 811; *Monsanto,* 858 F.2d at 172-73). Courts recognize that the imposition of joint and several liability frequently results in one defendant paying more than its fair share of clean-up costs. *Id.* In the case at bar, the task of proving divisibility is complicated by the fact that neither the parties nor the Court know exactly what was disposed of at either PAS or Fulton or what was in Alcan's emulsion.

Although Alcan tangentially addressed "synergy" and "mixing" at trial,[29] *see, e.g.,* Lagoe Testimony, Tr. at 120-24, it

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[29] Lagoe testified that the mixing of wastes would not create any new problematic chemicals and that there was no evidence of synergism at the site that caused a problem. *See* Lagoe Testimony, Tr. at 122-24. In his testimony, Lagoe used Webster's Seventh New Collegiate Dictionary's definition of synergism: "the cooperative action of discrete agencies, such that the total effect is greater than the sum of the effects taken independently." *Id.* at 123. Lagoe's examples indicate that he considered

did not provide evidence to negate the fact that its emulsion had a mobilizing effect on other hazardous wastes. As previously discussed, the Court found that Alcan's emulsion increased the migratory potential of hazardous substances at PAS and Fulton. In so finding, the Court rejected Alcan's analogy that the emulsion was synonymous to rain or milk added to cornflakes. Alcan's analogy suggests that, like rain, Alcan's emulsion contributed only volume to the waste at the sites. Alcan did not, however, prove that its emulsion was identical to rain in that it contributed only volume. Nor did Alcan prove that its emulsion was benign. In fact, the evidence suggested that Alcan's emulsion was a more aggressive solvent than either water (rain) or oil (milk) because, in an emulsion phase, oil and water have a greater capacity to absorb contaminants than either water or oil alone. Alcan's emulsion, therefore, absorbed the contaminants at the sites and facilitated their transport throughout. In so doing, Alcan's emulsion contributed to the breadth of contamination at both PAS and Fulton. In other words, even if the hazardous substances in Alcan's emulsion themselves did not contribute to the response costs at the sites (which the PCBs and nickel did), the emulsion as a whole contributed to both the release and response costs. Rain, unlike Alcan's emulsion, would not have absorbed the quantity of organic substances, including VOCs and PCBs, which Alcan's emulsion could have.

The extreme conditions at PAS further complicate Alcan's burden of proving divisibility. At least a portion of Alcan's emulsion was dumped into the million gallon lagoon at PAS,

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chemical rather than physical synergism. Lagoe considered whether Alcan's waste, when mixed with other wastes, would combine to form hazardous substances rather than considering whether the addition of Alcan's waste increased the migration of the waste resulting in an increase in total contamination. In fact, Lagoe testified that he did not view the fact that water dissolved water soluble chemicals as an example of synergy. *See id.* at 123-24.

which witnesses described as, among other things, a chemical bouillabaisse. *See* Freestone Testimony. Waste from the million gallon lagoon leaked through a compromised liner on the bottom, pushed through the sides, and overflowed over the top of the lagoon. The leaking waste flowed throughout the site intermingling with, among other things, waste from leaking drums in the drum storage area. At the time the government commenced a clean-up, the ground was so saturated by liquid waste that, according to one witness, it was like walking on a wet sponge.

As the Second Circuit recognized, however, the fact that Alcan's waste commingled with other wastes at PAS and Fulton does not mean that the harm at the sites is indivisible. *See Alcan,* 990 F.2d at 722. The Second Circuit adopted the Restatement (Second) of Torts' definition of divisibility, which states that harm is divisible where "joint tortfeasors act independently and cause a distinct harm, for which there is a reasonable basis of division according to the contribution of each." Prosser and Keeton explain that where two or more causes combine to produce a single indivisible result, liability cannot be apportioned. *See* Prosser & Keeton on Torts, § 52, p. 347 (5th Ed. 1984). Further, the conduct of multiple tortfeasors need not be simultaneous to cause an indivisible harm, "[o]ne defendant may create a situation upon which the other may act later to cause damage." *Id.,* at 348. For example, "[i]f two defendants, struggling for a single gun, succeed in shooting the plaintiff; there is no reasonable basis for dividing the liability." *Id.,* at 345. Moreover, if two defendants shoot the plaintiff "independently, with separate guns, and the plaintiff dies from the effect of both wounds, there can still be no division." *Id.* Thus, where two independent causes combine to cause an aggregate harm which exceeds the sum of the individual harms such that the harm attributable to each PRP becomes indistinguishable, the harm is not divisible. Such is the case at PAS where Alcan's emulsion provided a mode of transport for

other wastes that may not have been carried by rain or surface run off such that the emulsion contributed significantly to PAS's overall contamination. Thus, although the emulsion alone may have caused a specific harm and the waste deposited by other PRPs may have caused specific harms, the extent of the release at PAS is due to the combination of Alcan's waste with other wastes at the site. Accordingly, Alcan failed to prove that the harm at PAS is divisible.

Similarly, Alcan failed to prove that the harm at Fulton was divisible. At Fulton, the soil contamination was caused in large part by leaking storage tanks. Alcan's emulsion contributed to this leaking and the resulting contamination. Again, Alcan presented evidence that it should not be liable for any costs because its waste emulsion, in isolation, is nontoxic. The Court's findings negate this argument. Alcan did not provide any other evidence which proved that the harm at Fulton was divisible. Moreover, as discussed below, Alcan did not provide a reasonable basis for apportionment of either the response or investigative costs at Fulton and PAS.

C. Reasonable Apportionment

Assuming, *arguendo,* that the costs at PAS and Fulton were divisible, the Court will address Alcan's apportionment arguments. The Second Circuit instructed that Alcan could limit liability even if it contributed to the clean-up costs by providing a reasonable basis for apportioning liability. *See Alcan,* 990 F.2d at 722. Alcan attempted to provide such a basis by arguing that certain remediation techniques employed by the government did not address its emulsion.[30] The Court's

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[30] The Court recognizes that Alcan also presented evidence suggesting that the relative toxicity of its waste, when compared to other wastes at PAS, was negligible. Alcan thus argued that it did not contribute to the toxicity of the site and should not be held liable for clean-up costs. As discussed above, however, the Court is looking to Alcan's emulsion as a whole and considering both the chemical and physical interaction of the emulsion with other wastes at the site. Accordingly, even taking Alcan's proposition that

findings that the emulsion contained PCBs and nickel and facilitated the transport of hazardous substances limit the potential "reasonable basis" of apportionment of harm.

1. Remediation Techniques

Alcan offered testimony that specific remediation techniques employed at PAS and Fulton did not address its waste. Specifically, Alcan argued that it should not be held liable for certain costs at PAS including the construction of a slurry wall, collection of oil with absorbent beams, and treatment of liquid waste with a carbon filtration system because these response actions did not, or could not, effectively address its waste. Further, on the same basis, Alcan argued that it was not responsible for the cost of low temperature thermal desorption soil treatment at Fulton.

Section 113(j)(2) of CERCLA states that courts "shall uphold [the EPA's] decision in selecting the response action unless the objecting party can demonstrate, on the administrative record, that the decision was arbitrary and capricious or otherwise not in accordance with law." 42 U.S.C. § 9613(j)(2). Section 107(a) further provides: "Notwithstanding any other provision or rule of law, and subject only to the defenses set forth in subsection (b) of this section," a potentially responsible party "shall be liable for * * * all costs of removal or remedial action incurred by the United States government * * * not inconsistent with the National Contingency Plan ["NCP"]." 42 U.S.C. § 9607(a). "Agency action will be set aside only if: 'the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the

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its waste contained only oil, water, and background metals as true, the Court cannot conclude that the emulsion did not contribute to the release and clean-up costs at PAS.

product of agency expertise.'" *United States v. Burlington N. R.R. Co.*, 200 F.3d 679, 689 (10th Cir. 1999) (quoting *Motor Vehicle Mfrs. Ass'n of U.S. v. State Farm Mut. Ins. Co.*, 463 U.S. 29, 43 (1983)). Together, courts have read these provisions to mean that PRPs, like Alcan, challenging response actions must show "that the costs incurred were inconsistent with the NCP, an issue that is judicially reviewed under the arbitrary and capricious standard of review for agency action." *State of Minnesota v. Kalman W. Abrams Metals, Inc.*, 155 F.3d 1019, 1023 (8th Cir. 1998); *see also Burlington*, 200 F.3d at 692 (citing *United States v. Hardage*, 982 F.2d at 1442); *United States v. Chromalloy Am. Corp.*, 158 F.3d 345, 352 (5th Cir. 1998), *reh'g denied*, 174 F.3d 200 (5th Cir. 1999) ("As long as the government's choice of response is consistent with the NCP, costs are presumed to be recoverable.") (citing *United States v. Northeastern Pharm. & Chem. Co.*, 810 F.2d 726, 748 (8th Cir. 1986), *cert. denied*, 484 U.S. 848 (1987)).

Alcan did not argue that the government's response actions were arbitrary and capricious or inconsistent with the NCP. Rather, Alcan argued that certain remediation techniques did not address its waste emulsion. In a multi-generator CERCLA case, allowing a defendant to divide liability on this basis strays dangerously close to requiring the government to prove that a specific defendant caused a specific clean-up cost, a requirement the Second and Third Circuits have previously rejected. *Alcan*, 990 F.2d 711 at 720; *Alcan-Butler*, 964 F.2d at 264 ("[I]t is the release alone that must justify the response costs, not the particular waste generated by one defendant."). Moreover, allowing a defendant to avoid response costs at the apportionment phase simply by proving by a preponderance of the evidence that a certain remediation technique did not address the problems caused by its waste rather than reviewing the government's choice to employ certain techniques under an arbitrary and capricious standard, as required by the plain language of CERCLA, *see* 42 U.S.C. § 9607(a), 42 U.S.C.

§ 9613(j)(2), may open the "backdoor" to causation further than the Second Circuit intended. Nevertheless, the facts of this case show that the remediation techniques under attack did address environmental problems contributed to by Alcan's emulsion. Accordingly, it is unnecessary for this Court to determine how far the Second Circuit intended causation be reintroduced to this analysis.

(a) Slurry Wall

Alcan first argued that the presence of its emulsion at the site did not influence the size of the slurry wall. *See* Lagoe Testimony, Tr. at 106-08. To build a slurry wall, a trench is dug until a naturally impermeable layer is reached. The trench is then filled with clay to make an impermeable wall. The slurry wall creates an impermeable barrier on the perimeter of a contaminated site, diverts groundwater away from the site, and isolates groundwater contaminants on-site. *See* Government Ex. 70. Alcan argued that because PAS's geography defined the depth of the slurry wall and PAS's operations determined the slurry wall's other dimensions, the slurry wall would have been constructed in the same way even if Alcan had not sent waste to the site.

In a multi-generator context, a PRP cannot avoid liability by showing that the government would have taken action absent a single generator's waste. As noted by the Third Circuit in *Alcan-Butler:*

> [T]he fact that a single generator's waste would not in itself justify a response cost is irrelevant in the multi-generator context, as this would permit a generator to escape liability where the amount of harm it engendered to the environment was minimal, though it was significant when added to other generator's waste.

964 F.2d at 264. Therefore, to avoid liability Alcan must show that its emulsion, when mixed with other hazardous wastes, did not contribute to the response costs — in this case, the need for

the slurry wall. It is insufficient to show that the slurry wall would have been necessary but for Alcan's waste. *See Alcan,* 990 F.2d at 722.

Given the prior findings of this Court that Alcan's emulsion contained PCBs, contributed to above background levels of nickel in PAS's groundwater, had the capacity to absorb and transport hazardous substances and, thus, contributed to the migration of hazardous materials at PAS, the Court concludes that the government erected the slurry wall, in part, to address problems contributed to by the emulsion. Accordingly, Alcan is jointly and severally liable for the cost of the slurry wall.

(b) Absorbent Beam

Alcan next argued that because it disposed of oil emulsion, which does not float on top of the water, the use of an oil absorbent beam did not address its waste. As discussed, however, it is highly unlikely that all of Alcan's emulsion remained in the emulsion phase after disposal. It is more likely than not that when exposed to the environment some of the emulsion broke down into water and oil. Alcan did not prove that the emulsion did not contribute to the intense saturation of PAS with oily waste. Thus, the oil absorbent beam remediated a portion of Alcan's waste. It is unreasonable to apportion the cost of the beam by comparing how much of Alcan's oil the beam absorbed compared to how much oil from other sources it collected. Neither the Court nor the parties know how much of Alcan's emulsion was incinerated, how much remained in the emulsion phase, and how much separated into oil and water. Moreover, as discussed above, the Court cannot interpret CERCLA to allow divisibility of harm based on a theory that although a certain remediation technique addressed a PRPs waste, the technique would have been required absent that waste. Accordingly, Alcan is jointly and severally liable for the cost of the absorbent beam.

(c) Carbon Filtration System

Alcan next argued that the use of a carbon filtration system at PAS would not effectively remediate its waste because the oil in the emulsion would coat the carbon granules and prevent absorption.

The evidence demonstrated that the government successfully treated waste, including Alcan's, with a carbon filtration system. The evidence further suggested that the high organic content of the aqueous layer of the lagoon was attributable, in part, to the presence of Alcan's emulsion, which absorbed more organics than water alone could. Moreover, the carbon filtration system was employed as part of a court ordered remedy.

The fact that carbon filtration may not have been the most effective way to treat the emulsion, due to its oil content, does not mean that Alcan is not liable for the cost of treatment. As discussed above, Alcan can only escape liability for the cost of a specific remediation technique that addressed its waste by demonstrating that the technique is inconsistent with the NCP, a decision which is reviewed under the arbitrary and capricious standard. *See, e.g., Kalman W. Abrams Metals,* 155 F.3d at 1023. Alcan's arguments regarding the effectiveness of the method did not indicate the government's actions were inconsistent with the NCP or that the choice of remediation technique was arbitrary and capricious. Because Alcan has not sustained its burden of proof and demonstrated that the cost of carbon filtration was reasonably apportionable, it is jointly and severally liable for the costs associated with the water treatment.

(d) Low Temperature Thermal Desorption

Alcan further argued that because low temperature thermal desorption is not an effective remedy for metals, this remedy did not address its emulsion at Fulton. *See* Lagoe Testimony, Tr. at p. 113. Low temperature thermal desorption involves

digging up soil and heating it to volatilize organic materials. Leaking storage tanks primarily caused the soil and water contamination at Fulton. The parties stipulated that Alcan's emulsion was stored in Fulton's Tank One. The groundwater samples near Tank One showed the highest contamination levels, which suggests that material, including Alcan's emulsion, leaked from Tank One and contributed to the surrounding contamination. Although Alcan's emulsion itself may not have contributed VOCs to the soil around Tank One (groundwater analysis indicated the presence of, among other things, vinyl chloride, TCA, and 1,1, dichloroethene), Alcan did not prove that its emulsion did not mobilize hazardous wastes disposed of in Tank One and, thus, contribute to the soil contamination. Therefore, Alcan is jointly and severally liable for the cost of low temperature thermal desorption.

D. Investigative Costs

The government argued that even if Alcan proved that the harm at Fulton and PAS were divisible, the costs incurred in investigating the environmental situation at PAS and Fulton are indivisible and, thus, incapable of reasonable apportionment. Section 104(b)(1) of CERCLA requires the EPA to conduct studies and investigations as:

> necessary and appropriate to identify the existence and extent of the release or threat thereof, the source and nature of the hazardous substances, pollutants or contaminants involved, and the extent of danger to the public health or welfare or to the environment.

42 U.S.C. § 9604(b)(1). The NCP requires the EPA to characterize the nature and content of contamination at a specific site to determine the nature of, and threat posed, by any hazardous materials. *See* 40 C.F.R. § 300.430(d)(2). In cases where the EPA's information regarding the waste disposed of at a specific site is limited, the government argued that the EPA is obligated to sample for all the contaminants listed on the EPA's

Target Compound List ("TCL"). The government concluded that:

> [I]n cases where sites are contaminated with commingled waste, it is logically infeasible to use a sampling plan whereby sampling is divided into operable geographic units or into studies of a PRP's potential contributions to the contamination. Instead, [a Remedial Investigation Feasibility Study ("RIFS")] investigates the presence of contaminants on the [TCL] by a random sampling plan. By its very nature, a random sampling plan does not lend itself to apportionment between individual defendants.

Governments Trial Brief at 21 n. 11. The testimony of Nicoletta Diforte, who acted as a remedial project manager at Fulton and PAS, supports this conclusion. *See* DiForte Testimony (stating that work done in the RIFS stage is general, focusing on the specific features of the site rather than a specific generator's waste).

Alcan does not dispute this argument; but, rather, it argued that it "will demonstrate that this position is inconsistent with the law" as stated in *Licciardi v. Murphy Oil,* 111 F.3d 396 (5th Cir. 1997). *Licciardi,* however, does not refute the government's argument that the EPA's RIFS costs are not divisible. In *Licciardi,* a private homeowner brought a CERCLA cost recovery action against a neighboring oil refinery seeking to recover expenses for sampling and testing. The Fifth Circuit found that the Plaintiff's testing did not establish that any regulatory standards had been breached and held that in the absence of any such breaches or any other evidence, "a finding of hazardous substances 'above background levels'" is insufficient grounds on which to base CERCLA liability.[31] *Id.*

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[31] In a number of cases including this one, the Second Circuit has ruled that CERCLA liability can be premised on a finding of hazardous substances even when the substances are found below background levels, further reaffirming the principle that "quantity or concentration is not a factor" in

at 399. The Fifth Circuit's holding was based on the finding that the fourth element of a CERCLA cost recovery action, that "the release or threatened release of hazardous material must have caused plaintiff to incur response costs," had not been proven. *Id.* at 398-99. The decision did not address divisibility of harm or apportionment of costs. Here, however, the Court has previously determined Alcan is liable under CERCLA and, thus, has determined that, pursuant to CERCLA section 107(a), Alcan is jointly and severally liable for "all costs of removal or remedial action" at PAS and Fulton absent proof of divisibility and a reasonable basis of apportionment. *See Alcan,* 990 F.2d at 722; *Alcan,* 1996 WL 637559; *Alcan,* 755 F. Supp. 531. Accordingly, this case is outside of *Licciardi's* ambit.

It is well-settled that investigation and sampling costs are recoverable under CERCLA section 107(a), *see, e.g., B.F. Goodrich,* 99 F.3d at 528; *Lansford-Coaldale Joint Water Auth. v. Tonolli Corp.,* 4 F.3d 1209, 1218 (3d Cir. 1993) ("It is well-established that under this provision a plaintiff can recover its monitoring and evaluation costs from a release or threatened release without proving that its property was actually contaminated by the defendant."), and, thus, the question before the Court is limited to whether RIFS costs are ever divisible. The Court does not have to answer this question, however, because Alcan failed to satisfy its burden of proof. Alcan did not present any evidence regarding divisibility of the RIFS costs or any "reasonable basis" on which the Court could apportion such costs. Therefore, Alcan is jointly and severally liable for the RIFS costs at Fulton and PAS.

E. Remaining Arguments

Alcan did not present any other evidence proving a reasonable basis of apportionment of costs at either PAS and

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interpreting CERCLA's definition of hazardous substances. *Alcan,* 990 F.2d at 720 (citing CERCLA § 9601(14); *Murtha,* 958 F.2d at 1200; *accord Alcan-Butler,* 964 F.2d at 259-61.)

Fulton. The arguments not discussed by the Court addressed the individual constituents of Alcan's emulsion and/or Alcan's emulsion in isolation rather than the effect of the emulsion as a whole when mixed with other hazardous wastes at the site. As discussed above, these arguments are inconsistent with both the legal standard set forth by the Second Circuit and the policies behind CERCLA. As demonstrated by the evidence before the court a singularly non-toxic substance can physically interact with other substances and contribute to release and response costs. Arguments that ignore this combined effect, therefore, do not provide a reasonable basis for apportionment. Moreover, given the finding that the emulsion contained PCBs and nickel, Alcan's argument that its emulsion alone was harmless cannot succeed.

Accordingly, the Court finds that Alcan failed to prove that the harm at Fulton and PAS was divisible, that it was liable for only a divisible portion of the harm, or that there was a reasonable basis for apportionment of harm and, thus, Alcan is jointly and severally liable for all costs recoverable under CERCLA.

IV. Conclusion

The Court finds that the government satisfied its burden of proving that Alcan's emulsion contained PCBs and nickel. The Court further finds that Alcan did not satisfy its burden of proof on divisibility or provide this Court with a reasonable basis of apportionment of costs. Accordingly, Alcan is jointly and severally liable for response costs at Fulton and PAS. The government is **ORDERED** to submit an accounting of costs and settlements incurred at each site to date within 14 days of the date of this order such that the Court can quantify the damages award.

IT IS SO ORDERED.

Supreme Court, U.S.
FILED
DEC 8 - 2003
OFFICE OF THE CLERK

No. 03-433

In the Supreme Court of the United States

ALCAN ALUMINUM CORPORATION, PETITIONER

v.

UNITED STATES OF AMERICA AND
STATE OF NEW YORK

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SECOND CIRCUIT

BRIEF FOR THE UNITED STATES IN OPPOSITION

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QUESTION PRESENTED

Petitioner was found jointly and severally liable under Section 107(a) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9607(a), for the federal and state governments' unreimbursed costs in responding to the release of hazardous substances at two waste sites. The question presented is:

Whether the court of appeals properly affirmed the district court's finding that the harm caused by petitioner's waste oil emulsion was not divisible from the harm caused by other hazardous substances at the same sites.

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BRIEF FOR THE UNITED STATES IN OPPOSITION

OPINIONS BELOW

The opinion of the court of appeals (Pet. App. 2a-17a) is reported at 315 F.3d 179. The opinion of the district court (Pet. App. 18a-64a) is reported at 97 F. Supp. 2d 248.

JURISDICTION

The judgment of the court of appeals was entered on January 7, 2003. The court of appeals denied a petition for rehearing on April 21, 2003. On June 12, 2003, Justice Ginsburg extended the time within which to file a petition for a writ of certiorari to and including September 18, 2003, and the petition was filed on that date. The jurisdiction of this Court is invoked under 28 U.S.C. 1254(1).

STATEMENT

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), 42 U.S.C. 9601 *et seq.*, authorizes the United States to protect the public and the environment from the harm caused by the release or threat of release of hazardous substances and to recover the government's cleanup expenses from the parties responsible for the contamination. The United States brought a CERCLA action against petitioner Alcan Aluminum Corporation (Alcan) and 82 other responsible parties to recover the costs of responding to releases of hazardous substances at two waste disposal sites, the Pollution Abatement Services (PAS) site in Oswego, New York, and the Fulton Terminals (Fulton) site in Fulton, New York. The State of New York brought a parallel action against petitioner respecting the PAS site. All viable responsible parties other than petitioner reached settlements with the federal and state governments. The federal and state governments thereafter sought cost recovery from petitioner for the remaining unreimbursed costs.

In the case of the PAS site, the district court held petitioner jointly and severally liable for the governments' remaining response costs. *United States* v. *Alcan Aluminum Corp.*, 755 F. Supp. 531 (N.D.N.Y. 1991). The court of appeals affirmed petitioner's liability as a responsible party under CERCLA, but vacated the imposition of joint and several liability and remanded the action to give petitioner an opportunity to prove that it contributed at most only to a divisible portion of the harm. *United States* v. *Alcan Aluminum Corp.*, 990 F.2d 711, 722 (2d Cir. 1993) (*Alcan (PAS)*). On remand, the district court consolidated the PAS action with the United States' cost recovery action for

the Fulton site and granted summary judgment in favor of the United States on the issue of petitioner's liability for response costs at that site. After a five-day bench trial, the district court concluded that petitioner failed to satisfy its burden of proof on divisibility and apportionment and held petitioner jointly and severally liable for approximately $13.6 million, which reflected those federal and state response costs not recovered from other responsible parties at the sites. Pet. App. 5a, 64a. The court of appeals affirmed. *Id.* at 17a.

1. Congress enacted CERCLA "in response to the serious environmental and health risks posed by industrial pollution." *United States* v. *Bestfoods*, 524 U.S. 51, 55 (1998). CERCLA, as amended and expanded through the Superfund Amendments and Reauthorization Act of 1986 (SARA), Pub. L. No. 99-499, 100 Stat. 1613, "grants the President broad power to command government agencies and private parties to clean up hazardous waste sites." *Key Tronic Corp.* v. *United States*, 511 U.S. 809, 814 (1994). It "both provides a mechanism for cleaning up hazardous-waste sites, and imposes the costs of the cleanup on those responsible for the contamination." *Pennsylvania* v. *Union Gas Co.*, 491 U.S. 1, 7 (1989) (citations omitted); *Bestfoods*, 524 U.S. at 55-56 n.1.

CERCLA focuses on the release or threatened release of "hazardous substances" into the environment, 42 U.S.C. 9601(14). It defines "hazardous substance" to include "any element, compound, mixture, solution, or substances designated pursuant to" CERCLA Section 102, 42 U.S.C. 9602, or five other environmental statutes. "[W]hen a mixture or waste solution contains hazardous substances, that mixture is itself hazardous for purposes of determining CERCLA liability." *B.F. Goodrich* v. *Betoski*, 99 F.3d 505, 515 (2d

Cir. 1996) (quoting *B.F. Goodrich* v. *Murtha*, 958 F.2d 1192, 1201 (2d Cir. 1992)). Courts have consistently held that CERCLA's definition of hazardous substance does not include a "[q]uantity or concentration" requirement. *Alcan (PAS)*, 990 F.2d at 720; *B.F. Goodrich* v. *Murtha*, 958 F.2d at 1202; *United States* v. *Alcan Aluminum Corp.*, 964 F.2d 252, 261 (3d Cir. 1992) (*Alcan (Butler)*).[1]

CERCLA provides the President (acting primarily through the Environmental Protection Agency (EPA), see Exec. Order No. 12,580, 3 C.F.R. 193 (1987)), with alternatives for cleaning up hazardous substance sites. Under Section 104, EPA can itself undertake response actions, using the Hazardous Substance Superfund. See 42 U.S.C. 9604; see also *Bestfoods*, 524 U.S. at 55. Alternatively, under Section 106(a) EPA can seek, through an administrative order or a request for judicial relief, to compel the responsible parties to undertake response actions, which the government then monitors. See 42 U.S.C. 9606(a). Whichever route is followed, the United States may recover response costs it incurs from responsible parties through a cost recovery action under Section 107(a). 42 U.S.C. 9607(a).

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[1] See also *Amoco Oil Co.* v. *Borden, Inc.*, 889 F.2d 664, 669 (5th Cir. 1989) (the "plain statutory language fails to impose any quantitative requirement"); *City of New York* v. *Exxon Corp.*, 744 F. Supp. 474, 483 (S.D.N.Y. 1990) (liability "attaches regardless of the concentration of the hazardous substances present in a defendant's waste so long as the defendant's waste and/or the contaminants in it are 'listed hazardous substances' "); *Eagle-Picher Indus., Inc.* v. *EPA*, 759 F.2d 922, 927 (D.C. Cir. 1985); *United States* v. *Western Processing Co.*, 734 F. Supp. 930, 936 (W.D. Wash. 1990); *United States* v. *Conservation Chem. Co.*, 619 F. Supp. 162, 238 (W.D. Mo. 1985); *United States* v. *Wade*, 577 F. Supp. 1326, 1340 (E.D. Pa. 1983).

CERCLA accordingly "places the ultimate responsibility for cleanup on those responsible for problems caused by the disposal of chemical poisons." *United States* v. *Aceto Agr. Chems. Corp.*, 872 F.2d 1373, 1377 (8th Cir. 1989) (quoting *Dedham Water Co.* v. *Cumberland Farms Dairy, Inc.*, 805 F.2d 1074, 1081 (1st Cir. 1986) (internal quotation marks omitted)). "The remedy that Congress felt it needed * * * is sweeping: *everyone* who is potentially responsible for hazardous-waste contamination may be forced to contribute to the costs of cleanup." *Bestfoods*, 524 U.S. at 56 n.1 (quoting *Union Gas*, 491 U.S. at 21 (plurality opinion of Brennan, J.)).

Courts have consistently ruled that, once the United States has established the elements of CERCLA liability, the responsible party is strictly liable for the government's response costs and is jointly and severally liable for the entire harm if the harm from the release of hazardous substances is not divisible. *E.g.*, *Centerior Serv. Co.* v. *Acme Scrap Iron & Metal Co.*, 153 F.3d 344 (6th Cir. 1998); *Alcan (PAS)*, 990 F.2d at 721-722; *Alcan (Butler)*, 964 F.2d at 268-269; *United States* v. *Kayser-Roth Corp.*, 910 F.2d 24, 26-27 (1st Cir. 1990), cert. denied, 498 U.S. 1084 (1991); *United States* v. *R.W. Meyer, Inc.*, 889 F.2d 1497, 1507 (6th Cir. 1989), cert. denied, 494 U.S. 1057 (1990); *Aceto*, 872 F.2d at 1377; *United States* v. *Monsanto Co.*, 858 F.2d 160, 167, 172 (4th Cir. 1988), cert. denied, 490 U.S. 1106 (1989). In analyzing divisibility of harm, courts have followed common law principles, which provide that damages may be apportioned where: (1) "there are distinct harms," or (2) "there is a reasonable basis for determining the contribution of each cause to a single harm." *Alcan (Butler)*, 964 F.2d at 268. The burden of proving divisibility rests upon the responsible party and in-

volves an "intensely factual determination." *Alcan (PAS)*, 990 F.2d at 722.

2. The United States and the State of New York sued petitioner and 82 other responsible parties to recover federal and state response costs associated with the remediation of surface water, groundwater, and soils at the PAS site. The United States brought a parallel suit respecting contamination at the Fulton site. All of the financially solvent parties responsible for contamination at the sites, except petitioner, entered into settlements providing for remediation of conditions at the PAS and Fulton sites and reimbursement of the federal and state governments for most of their response costs. Petitioner, which had disposed of more than 4.6 million gallons of waste oil emulsion at the PAS site and approximately 70,000 gallons of the emulsion at the Fulton site, declined to settle on terms comparable to the other settling parties. Pet. App. 3a-4a.

In the case of the PAS site, the district court granted summary judgment in favor of the United States and New York, finding petitioner jointly and severally liable for their response costs. Pet. App. 4a; see *Alcan*, 755 F. Supp. 531 (N.D.N.Y. 1991). The court of appeals affirmed that judgment with respect to petitioner's liability as a responsible party under CERCLA. Pet. App. 4a, 7a; see *Alcan (PAS)*, 990 F.2d at 722. The court of appeals specifically rejected petitioner's argument that a polluter should not be held liable unless the concentration of hazardous substances exceeds some minimum threshold. *Id.* at 720-721. That court, however, vacated the district court's imposition of joint and several liability and remanded the action to give petitioner an opportunity to prove either "that its oil emulsion, when mixed with other hazardous [substances],

did not contribute to the release and clean-up costs that followed" or that it "contributed at most only to a divisible portion of the harm." Pet. App. 8a (quoting *Alcan (PAS)*, 990 F.2d at 722).

In reaching that disposition, the court of appeals recognized a "special exception" that would allow petitioner to escape liability for naturally-occurring substances if petitioner could prove that "its pollutants did not contribute more than background contamination and also cannot concentrate." Pet. App. 8a (quoting *Alcan (PAS)*, 990 F.2d at 722). In the event petitioner could not prove that it qualified for the special exception, the court of appeals ruled, petitioner could present "evidence relevant to establishing divisibility of harm," *ibid.*, including proof disclosing the relative "toxicity, migratory potential, and synergistic capacities of the hazardous substances at the site." *Id.* at 8a-9a (quoting *Alcan (PAS)*, 990 F.2d at 722). The court of appeals made clear that, because petitioner had been found liable as a responsible party under CERCLA, it bore "the ultimate burden of establishing a reasonable basis for apportioning liability," while the federal and state governments bore no burden on that "intensely factual" issue. *Id.* at 9a.

Following the consolidation of the PAS and Fulton actions, the district court granted summary judgment in favor of the United States on the issue of petitioner's liability for releases at the Fulton site, but denied summary judgment on the issue of divisibility of harm. Pet. App. 4a-6a. The district court then conducted a five-day bench trial to allow petitioner to prove that the harm from release of its waste oil emulsion mixture was divisible. *Id.* at 5a. Based on the resulting record, the district court entered findings of fact and conclusions of law holding petitioner jointly and severally liable for

the governments' response costs at the PAS and Fulton sites. *Id.* at 18a-64a.

In finding petitioner jointly and severally liable, the district court concluded that petitioner failed to satisfy its burden of proof on divisibility and apportionment. Pet. App. 61a, 64a. Petitioner presented only one fact witness, an Alcan employee, who was not qualified as an expert in any critical areas including concrete technology (which related to the presence of polychlorinated biphenyls (PCBs) in the emulsion), risk assessments, remedial measures taken at the sites, and whether petitioner's emulsion caused or contributed to the response costs or remedies at the PAS and Fulton sites or at other sites where petitioner disposed of its emulsion. C.A. App. 289, 329-330, 348-351, 358, 396-399, 404. Petitioner presented no evidence whatsoever with respect to certain factors found relevant by the court of appeals in its 1993 *Alcan (PAS)* decision—namely, relative toxicity, migratory potential, degree of migration, and synergistic capacities of the waste oil emulsion mixture. See Pet. App. 23a, 50a-51a, 52a-53a, 55a.

Although not required to do so, the federal and state governments presented affirmative scientific and factual evidence respecting the contamination of petitioner's waste oil emulsion mixture with PCBs and nickel. Pet. App. 35a-45a. They also presented evidence showing the migratory potential and synergistic capacities of the waste oil emulsion mixture. *Id.* at 48a-49a. The federal and state governments additionally presented evidence showing that petitioner's waste oil emulsion as a whole contributed to releases and response costs at the sites and was not divisible. *Id.* 48a-49a, 53a, 55a. The district court based its ruling on the extensive scientific evidence that the federal and

state governments presented at trial. See, *e.g.*, *id.* at 49a-56a.

With respect to PCBs, the district court's findings of fact describe petitioner's use of PCBs at its Oswego plant and resulting contamination of petitioner's plant and of its waste oil emulsion, and the scientific evidence linking the disposal of petitioner's waste oil emulsion at the PAS and Fulton sites with the PCB contamination at those sites. Pet. App. 36a-45a. Based on those findings, the district court concluded that PCBs contaminated the emulsion petitioner sent to PAS and Fulton and led to the incurrence of response costs at the sites. *Id.* at 45a. The court also found that it was more likely than not that petitioner's waste oil emulsion contained nickel. *Id.* at 35a-36a.

Based on the evidence at trial, the district court described the physical characteristics and interaction of petitioner's emulsion with other wastes at the sites. Pet. App. 48a-49a. The court concluded that, after disposal, petitioner's emulsion remained in a single emulsified phase that was able to dissolve larger concentrations of substances than either oil or water alone and, therefore, "increase[d] the migratory potential of hazardous substances more than either water or oil." *Id.* at 48a-49a. Petitioner did not present evidence to negate the governments' scientific proof that the emulsion had a mobilizing effect on other hazardous substances and thus contributed to the breadth of contamination at the sites. *Id.* at 52a-53a.

Applying the court of appeals' divisibility standard to the facts before it, the district court concluded that "Alcan did not satisfy its burden of proof on divisibility or provide this Court with a reasonable basis of apportionment of costs." Pet. App. 64a. The court accordingly held petitioner jointly and severally liable

for response costs at the PAS and Fulton sites. *Ibid.* Based upon post-trial submissions, the court entered judgment in favor of the United States in the amount of $12,201,929.30 and in favor of New York in the amount of $1,422,155.39, and also provided declaratory relief for future costs. See *id.* at 5a.

3. The court of appeals affirmed the district court's rulings on joint and several liability in their entirety, Pet App. 2a-17a, unanimously rejecting all of petitioner's numerous challenges to the district court's decision. Only two of the court of appeals' rulings are relevant to the petition for writ of certiorari.

First, the court of appeals held, based upon the district court's factual findings regarding the presence of PCBs in petitioner's waste oil emulsion, that petitioner did not qualify for the "special exception" from CERCLA liability that the court created in its *Alcan (PAS)* decision. Pet. App. 9a-10a. The court of appeals explained that its exception was expressly created "based on an awareness that some CERCLA hazardous substances, like metals, occur in the environment naturally" and that the exception was not intended to encompass man-made substances such as PCBs. *Id.* at 10a.

Second, the court of appeals held that petitioner failed to demonstrate that the harm at the PAS and Fulton sites was divisible, rejecting petitioner's analysis of its waste oil emulsion which focused individually on each constituent of the waste without regard to the effects of the emulsion as a whole. Pet. App. 10a-13a. The court correctly found that "Alcan does not claim that the harm caused by its emulsion was somehow distinct from the harm caused by other hazardous substances at the site, nor does the company make any real effort to identify the extent to which its

waste contributed to a single harm," and it also specifically rejected petitioner's contention that its waste emulsion was benign and just like homogenized milk. *Id.* at 11a. The court concluded:

> Because Alcan, which carried the burden of proof, did not comprehensively and persuasively address the effects of its waste emulsion at PAS and Fulton, it cannot be said that the company either established that the harm caused by its emulsion was distinct or proffered a reasonable basis for dividing the harm and apportioning liability. Stated another way, [Alcan] did not satisfy its substantial burden with respect to divisibility because it failed to address the totality of the impact of its waste at each of the sites; it ignored the likelihood that the cumulative impact of its waste emulsion exceeded the impact of the emulsion's constituents considered individually, and neglected to account for the emulsion's chemical and physical interaction with other hazardous substances already at the site.

Id. at 12a. The court also noted that its conclusion was consistent with *United States* v. *Alcan Aluminum Corp.*, 892 F. Supp. 648, 651 (M.D. Pa. 1995), aff'd, *Alcan (Butler)*, 96 F.3d 1434 (3d Cir. 1996), cert. denied, 521 U.S. 1103 (1997), which "similarly found Alcan jointly and severally liable for cleanup costs incurred at a site where waste emulsion from the company's Oswego, New York facility was discharged." Pet. App. 13a.

ARGUMENT

The court of appeals correctly concluded that petitioner is subject to joint and several liability for unreimbursed costs that the United States and New York

incurred in responding to the release and threatened release of hazardous substances from the PAS and Fulton sites. That court properly affirmed the district court's determination that petitioner's disposal of millions of gallons of industrial waste at those sites contributed to the release and threatened release of hazardous substances and that petitioner's contribution to the harm was not divisible. The court of appeals' affirmance of the district court's "intensely factual determination" (Pet. App. 9a) does not conflict with any decision of this Court or any other court of appeals.[2]

1. Petitioner claims (Pet. 6-11) that the court of appeals erred by failing to impose a quantity requirement upon CERCLA's definition of a "hazardous substances." See CERCLA § 101(14), 42 U.S.C. 9601(14). According to petitioner (Pet. 7) it is "illogical" to define "hazardous substances" to include products which contain trace amounts of potentially harmful substances. The courts of appeals, however, have consistently held that CERCLA's definition of "hazardous substance" imposes no minimum-quantity requirement. Petitioner's contention provides no basis for further review.

a. As a result of CERCLA's carefully formulated definition, the identification of a "hazardous substance" depends primarily on the characteristics, rather than the concentration, of the substance at issue. See, *e.g.*, *Alcan (PAS)*, 990 F.2d at 720-721; *Alcan (Butler)*, 964 F.2d at 261. The "plain statutory language fails to impose any quantitative requirement." *Amoco Oil Co.* v. *Borden, Inc.*, 889 F.2d 664, 669 (5th Cir. 1989). Con-

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[2] The court denid a prior petition for writ of certiorari in which petitioner presented essentially the same issues in the factually similar *Alcan (Butler)* litigation. See *Alcan Aluminum Corp.* v. *United States*, cert. denied, 521 U.S. 1103 (1997) (No. 96-1494).

gress properly recognized that even dilute concentrations of a dangerous substance can pose serious threats to public health and the environment, and it therefore defined the term "hazardous substance" through terms that encompassed that possibility. The courts have correspondingly concluded, without exception, that CERCLA liability may arise from the improper disposal of wastes containing small amounts of hazardous substances. See *B.F. Goodrich*, 958 F.2d at 1202; *Eagle-Picher Indus., Inc.* v. *EPA*, 759 F.2d 922, 927 (D.C. Cir. 1985); *City of New York* v. *Exxon Corp.*, 744 F. Supp. 474, 483 (S.D.N.Y. 1990); *United States* v. *Western Processing Co.*, 734 F. Supp. 930, 936 (W.D. Wash. 1990); *United States* v. *Conservation Chem. Co.*, 619 F. Supp. 162, 238 (W.D. Mo. 1985); *United States* v. *Wade*, 577 F. Supp. 1326, 1340 (E.D. Pa. 1983).

Petitioner nevertheless asserts (Pet. 6-8) that the courts should create an extra-textual concentration requirement to avoid the possibility of "absurd" impositions of liability. Notwithstanding petitioner's speculation and unsubstantiated anecdotes, such as "a reported threat to prosecute Girl Scouts for disposing of trash that included pizza boxes" (Pet. 6), this case presents no occasion for addressing that question. Petitioner cannot plausibly contend that the federal and state governments' response to the release or threatened release of hazardous substances *in this case* was unjustified. As the court below correctly recognized, the issue here, instead, is whether petitioner's contribution to *that* harm was divisible, and both courts below concluded, as a matter of fact, it was not. That "intensely factual determination" does not warrant further review.[3]

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[3] Significantly, Congress has been attentive to the theoretical breadth of CERCLA liability and has periodically amended

b. Petitioner additionally argues (Pet. 8-9) that the court of appeals erred in interpreting the "special exception" it created in the 1993 *Alcan (PAS)* decision, which permits a polluter to avoid liability altogether if it can prove that "its pollutants did not contribute more than background contamination and also cannot concentrate." 990 F.2d at 722. The court of appeals, which created the "special exception," affirmed the district court's application of its principle to the facts of this case. The court's affirmance of the district court's application of a narrow legal principle to particular facts plainly provides no basis for this Court's review. See Sup. Ct. R. 10.

Petitioner asserts (Pet. 8-9) that the court of appeals erred in refusing to extend its special exception for

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CERCLA to limit its application to situations that could conceivably reach more broadly than Congress intended. For example, in January 2002, Congress enacted carefully tailored revisions to CERCLA's liability provisions, including the de micromis provision, CERCLA § 107(o), which exempts from liability at National Priority List (NPL) sites those persons who sent less than 110 gallons of liquid materials or less than 200 pounds of solid materials to the site; the municipal solid waste (MSW) provision, CERCLA § 107(p), which exempts certain categories of persons from liability at NPL sites for disposing of MSW; CERCLA § 107(q), which provides a defense to liability for certain owners of property located contiguous to, and contaminated by, hazardous waste sites; and CERCLA § 107(r), which provides a defense to liability for bona fide prospective purchasers of contaminated property. Pub. L. No. 107-118, §§ 102(a), 221, 222(b), 115 Stat. 2356-2357, 2368, 2371-2372 (to be codified at 42 U.S.C. 9607(o)-(r)). In addition, those who do not qualify for the de micromis exemption, but who sent a relatively small amount of hazardous substances to a site, may enter into a de minimis settlement, under which they make a limited cash payment to EPA in exchange for an immediate release from past and future liability at the site. CERCLA § 122(g), 42 U.S.C. 9622(g).

naturally occurring hazardous substances to manmade pollutants, such as highly toxic PCBs. Petitioner argues that the exception should apply to manmade chemicals because they are also present, in small amounts, throughout the environment. The court refused to so hold, stating that "[w]e created this exception based on an awareness that some CERCLA hazardous substances, like metals, occur in the environment *naturally*." Pet. App. 10a (emphasis added).[4]

Petitioner's argument, in any event, is without factual foundation. Petitioner presented no evidence at trial on the pre-disposal background levels of PCBs at

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[4] Petitioner mistakenly suggests (Pet. 9) that an EPA internal guidance document on remediation supports extension of the court's extra-textual "special exception." See Office of Solid Waste and Emergency Response, EPA, *Role of Background in the CERCLA Cleanup Program*, OSWER 9285.6-07P (Apr. 26, 2002). The EPA document acknowledges that manmade pollutants may exist in trace amounts in soil or rainwater and indicates that EPA does not normally require cleanup for below-background levels of potentially harmful substances, even manmade ones. *Id.* at 7. The document, however, does not address the scope of CERCLA liability. It merely indicates, in the context of addressing remediation and risk assessment of hazardous sites, that EPA generally takes into account any background constituents (both natural and anthropogenic substances–*i.e.*, those which are present as a result of human activity but not specifically related to the CERCLA release in question) and may, where conditions warrant, clean up background constituents in the context of responding to a release or threatened release of hazardous substances. Petitioner's citation (Pet. 9) to a Food and Drug Administration (FDA) regulation (21 C.F.R. 109.30(a)) that establishes temporary tolerances for PCB residues in foods and characterizes PCBs as "a persistent and ubiquitous contaminant" also sheds no light here. The FDA regulation does not purport to establish permissible "background" levels of PCBs for purposes of CERCLA response actions.

the PAS or Fulton sites or in the general geographic vicinity of the sites, and petitioner failed to present any proof that the levels of PCBs in its waste emulsion fell below any alleged "background" levels for PCBs in the area. By contrast, the federal and state governments presented evidence, based on tests done by Alcan's own contractors when remediating the PCB contamination at Alcan's Oswego plant, that the concrete at Alcan's plant contained levels of PCBs from 1200 parts per million to 64,000 parts per million and that the PCB-contaminated concrete, in turn, contaminated the oil emulsion. See Pet. App. 38a-39a; C.A. App. 225-226, 228 (Stipulations ¶¶ 20-38, ¶ 61). The district court correspondingly found that "the government proved, by a preponderance of the evidence, that PCBs contaminated the emulsion Alcan sent to PAS and Fulton." Pet. App. 45a.[5]

c. Petitioner mistakenly argues (Pet. 9-10) that the court of appeals' decision is in tension with the First Circuit's decision in *Massachusetts* v. *Blackstone Valley Electric Co.*, 67 F.3d 981 (1995), and the Fifth Circuit's decision in *Licciardi* v. *Murphy Oil U.S.A., Inc.*, 111 F.3d 396 (1997). Those decisions, however, are plainly inapposite to the issue presented here.

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[5] Furthermore, because petitioner presented no proof that the PCBs or nickel in its emulsion could not concentrate (through, for example, evaporation of water), petitioner could not, in any event, qualify for the court of appeals' "special exception." See 990 F.2d at 722 (holding that petitioner can escape liability "where its pollutants did not contribute more than background contamination *and* also cannot concentrate") (emphasis added); see also C.A. App. 191-192 n.5 (denying petitioner's motion under Rule 60(b) of the Federal Rules of Civil Procedure and explaining that "[t]he burden was on Alcan to prove that the metals in its emulsion could not concentrate and Alcan did not satisfy this burden").

In *Blackstone*, the First Circuit ruled that a particular substance—ferric ferrocyanide—is not a "hazardous substance" because it does not meet CERCLA's specific statutory definition of a hazardous substance. See CERCLA § 101(14), 42 U.S.C. 9601(14). The court ruled that it was not sufficient that the substance falls within a general category of "cyanides" listed under the Clean Water Act; rather, the court ruled, the substance must be more specifically identified in one of the lists of hazardous substances that Section 101(14) of CERCLA incorporates by reference. 67 F.3d at 984-985. Because each of the substances at issue in this case undeniably qualifies as a hazardous substance under CERCLA, the First Circuit's decision is irrelevant.

In *Licciardi*, the Fifth Circuit addressed whether a private party presented sufficient evidence to prove that the incurrence of response costs was actually caused by the release of hazardous substances. 111 F.3d at 398-399. That court reversed a district court's finding of CERCLA liability because the party presented "no evidence that the found 'release' justified the response costs." *Id.* at 399. By contrast, there is no question in this case that the federal and state governments incurred response costs at the PAS and Fulton sites on account of the release and threatened release of hazardous substances that included petitioner's contaminated waste oil emulsion. See Pet. App. 6a-7a. Contrary to petitioner's suggestion (Pet. 10), the Fifth Circuit did not hold that a company could not be liable under CERCLA for disposing of de minimis amounts of hazardous substances. *Licciardi* has no bearing here.

2. Petitioner challenges (Pet. 11-15) the court of appeals' divisibility ruling, but it does not contend that the court of appeals' standard conflicts with any decision of this Court or another court of appeals. Rather,

petitioner primarily contends (Pet. 12-13) that the court of appeals erred in ruling that, to prove divisibility, petitioner could not meet its burden by focusing individually on each constituent of the waste in isolation without analyzing the impact of the waste oil emulsion mixture as a whole.

a. The court of appeals correctly recognized that petitioner "failed to address the totality of the impact of its waste at each of the sites; it ignored the likelihood that the cumulative impact of its waste emulsion exceeded the impact of the emulsion's constituents considered individually, and neglected to account for the emulsion's chemical and physical interaction with other hazardous substances already at the site." Pet. App. 12a. Petitioner's fact-specific challenge to the court of appeals' conclusion that petitioner failed to meet its burden of proof plainly does not present an issue of general importance warranting review by this Court. See *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 336 U.S. 271, 275 (1949) (This Court "cannot undertake to review concurrent findings of fact by two courts below in the absence of a very obvious and exceptional showing of error.").

The court of appeals' decision is consistent with the only other decision to address this issue, which squarely rejected petitioner's identical arguments regarding the disposal of the same waste oil emulsion at the Butler Tunnel site in Pennsylvania. See Pet. App. 13a. The district court in *Alcan (Butler)* rejected petitioner's attempts to "dissect its waste material into components regulated by CERCLA and those not regulated by CERCLA," and it expressly held that, to prove divisibility, "the focus of any effort must be on the emulsion itself, and not on the constituents of that emulsion." 892 F. Supp. at 654-655 & n.11.

b. Even if petitioner were correct in insisting that analyzing constituents of its waste oil emulsion, rather than its emulsion as a whole, may suffice to prove divisibility, petitioner has not accurately characterized the evidence it presented at trial. Petitioner asserts (Pet. 12) that the court of appeals ignored its "evidence as to the relative amount of pollutants contained in Alcan's waste emulsion." Specifically, petitioner contends that it presented "uncontested evidence" showing that any PCBs in its waste oil emulsion "constituted no more than 0.01% of all of the known PCBs sent to the PAS site, and that those known PCBs in turn, constituted only 0.24% of all the waste at the site." Pet. 12 (citing C.A. App. 1196). Neither the court of appeals nor the district court could have credited such an assertion, because petitioner did not introduce any evidence substantiating that claim. See Pet. App. 52a ("neither the parties nor the Court know exactly what was disposed of at either PAS or Fulton or what was in Alcan's emulsion").[6]

c. Petitioner also mistakenly faults the court of appeals (Pet. 13-14) for imposing joint and several liability based upon the mobilizing effect of the waste

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[6] Petitioner's citation to C.A. App. 1196 refers to a pie chart purporting to show "alleged quantity of PCBs in Alcan waste vs. known quantities of PCBs sent to PAS." Petitioner's sole witness at trial, however, presented no relevant testimony or other direct evidence establishing the quantities of PCBs sent to the PAS site from other sources or the concentrations of these PCBs or otherwise substantiating the conclusions contained in the pie chart. Thus, contrary to its suggestion, petitioner presented no evidence regarding any quantities of PCBs disposed of at the PAS site, whether by petitioner or other sources. Petitioner's wholly unsupported and unexplained pie chart plainly does not provide a "more than sufficient basis on which to apportion liability" (Pet. 12).

oil emulsion as a whole. Petitioner essentially contends that the court should not have attributed any mobilizing effects to the waste oil emulsion because, in its view, only the water and oil components of the emulsion were responsible for spreading other hazardous substances present at the site. Petitioner overlooks the fact that it did not send a pure oil-water emulsion to the PAS and Fulton sites; rather, it sent a mixed industrial waste stream, consisting of water, oil, PCBs and other hazardous substances that, in itself, qualified as a hazardous substance. The court of appeals properly considered the characteristics of the mixed industrial waste stream the petitioner actually sent to the PAS and Fulton sites in affirming (Pet. App. 12a-13a) the district court's findings that the waste product "increased the migratory potential of hazardous substances at PAS and Fulton," "absorbed the contaminants at the sites and facilitated their transport," and "contributed to the breadth of contamination at both PAS and Fulton" (*id.* at 53a).

d. Petitioner challenges the lower court's assessment of the migratory potential of its waste product, but petitioner presented no affirmative evidence at trial to rebut the government showing that the waste oil emulsion interacted with other wastes at the sites and increased the migratory potential of other hazardous substances. Rather, petitioner argued at trial that rainfall caused migration of the wastes at the PAS site, and the only evidence petitioner presented on migration of its emulsion when mixed with other substances was testimony regarding the average rainfall in the Oswego area. Refuting that theory, the federal and state governments presented expert testimony establishing that petitioner's waste oil emulsion would dissolve and mobilize other hazardous substances and

facilitate the transport of those contaminants throughout the PAS and Fulton sites. The district court credited that testimony and the court of appeals properly affirmed the district court's factual findings. See Pet. App. 12a, 52a-53a.

e. Petitioner suggests (Pet. 14) that the court of appeals' decision unfairly holds petitioner "*entirely*" liable for the cleanup costs for two sites and all of the PCBs, while the settling defendants were permitted to pay a "disproportionately low share." That suggestion is inaccurate. Petitioner concedes that it disposed of 4.6 million gallons of its waste oil emulsion at the PAS site, which constitutes approximately 25 percent of the total volume of waste material sent to that location. C.A. App. 494. The federal and state governments recovered approximately 75 percent of the response costs from responsible parties that, unlike petitioner, agreed to a settlement of the dispute. See 990 F.2d at 717. The federal and state governments sought recovery of only their remaining unreimbursed costs, and the amount they sought from petitioner corresponds to petitioner's volumetric contribution. The federal and state governments have also sought interest on unreimbursed remediation costs and enforcement costs that have accrued, as a consequence of this litigation, since 1987. In short, petitioner has been assessed a fair share of the response costs at the PAS and Fulton sites.

CONCLUSION

The petition for a writ of certiorari should be denied.

Respectfully submitted.

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No. 03-433

In the Supreme Court of the United States

ALCAN ALUMINUM CORPORATION, PETITIONER

v.

UNITED STATES OF AMERICA;
STATE OF NEW YORK

ON PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SECOND CIRCUIT

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INTRODUCTION

The federal government's brief in opposition does not seriously defend the two legal holdings underpinning the Second Circuit's decision: its holding that a company may be subject to CERCLA liability for disposing of a substance containing only below-background amounts of manmade pollutants, and its holding that a company may be subject to joint and several CERCLA liability on the ground that even harmless substances, once disposed of, can "spread" the hazardous substances disposed of by others.

Instead, the government repeatedly attempts to portray the decision below as doing no more than affirming factual findings. As the widespread *amicus* interest in this case amply demonstrates, however, nothing could be further from the truth. It is the troubling legal standards employed by the Second Circuit, not any Alcan-specific findings, that threaten to expose companies to crushing liability simply for being so bold as to dispose of harmless substances. Furthermore, even assuming that there are outstanding factual disputes even after the correct legal standards have been determined, as the government contends, those disputes may be resolved on remand, and do nothing to preclude the Court's review at this juncture.

This Court's intervention is urgently needed. The Court has heard only one CERCLA case in the last ten Terms — and that involving an issue of relatively narrow significance. *See United States v. Bestfoods*, 524 U.S. 51 (1998). No one seriously contests that the government is increasingly taking a "very aggressive posture" in CERCLA proceedings. Sue Reisinger, *Feds Pay in Superfund Lawsuits*, Nat'l Law J., Dec. 1, 2003, at 8, 10 (internal quotation omitted). Nor does anyone seriously doubt that a big part of the reason that this Court and the courts of appeals have thus far been unable to develop workable CERCLA standards is that the "inordinate liability and litigation costs associated with defending CERCLA cases," Br. of Washington Legal Foundation *et al.* 20, force many a

defendant to settle even before litigation begins. The lower courts, including the Second Circuit itself, are crying out for guidance on what all agree are the many "ambiguit[ies] within CERCLA's miasmatic provisions." *Commander Oil Corp. v. Barlo Equip. Corp.*, 215 F.3d 321, 326 (2d Cir. 2000) (Walker, J.). Because this case presents a rare opportunity for the Court to provide such guidance, *certiorari* should be granted.

REASON FOR GRANTING THE WRIT

THE SECOND CIRCUIT ERRED ON TWO CERCLA QUESTIONS OF EXCEPTIONAL IMPORTANCE.

This case raises heretofore-unresolved CERCLA issues of exceptional importance. When viewed against the backdrop of similarly important provisions in *other* environmental statutes, it is remarkable that, in the almost 25 years after CERCLA's enactment, neither this Court nor the government itself has ever given an authoritative interpretation to CERCLA's bedrock provisions (i) defining what constitutes a "hazardous substance" or (ii) specifying when, if at all, generators may be subject to joint and several liability on the ground that harmless wastes they have disposed of might "spread" the hazardous wastes disposed of by others. *Cf., e.g., Whitman v. American Trucking Assn's, Inc.*, 531 U.S. 457 (2001) (interpreting foundational "national ambient air quality standards" provisions of the Clean Air Act); *Solid Waste Agency of N. Cook Cty. v. Army Corps of Eng'rs*, 531 U.S. 159 (2001) (interpreting foundational "navigable waters" provision of Clean Water Act); *Babbitt v. Sweet Home Chapter*, 515 U.S. 687 (1995) (interpreting foundational "take" provisions of the Endangered Species Act). Nor, given the government's "very aggressive posture" in CERCLA proceedings and the "inordinate liability and litigation costs" associated with defending CERCLA cases, is this Court likely to have such an opportunity again in the near future. *Certiorari* is accordingly warranted.

A. The Second Circuit Erred By Imposing CERCLA Liability For Disposing Of Waste Even If It Contains Only Below-Background Levels Of A Manmade Pollutant.

1. The government's brief never comes to grips with Alcan's fundamental argument in favor of *certiorari*: namely, that there is an urgent need for a workable definition of what constitutes a "hazardous substance" for purposes of imposing CERCLA liability. As noted in the petition, the government can, and does, effectively give this key statutory term an absurd meaning. *See* Pet. 6-11. Remarkably, the government does not deny that, because virtually *all* material contains below-background amounts of manmade hazardous substances, its reading of the statute would afford the government unfettered discretion to decide whom to prosecute for CERCLA liability.

2. The government makes only halfhearted efforts to defend the Second Circuit's holding that generators are exempt from CERCLA liability in cases in which their waste contains below-background levels of *naturally occurring* hazardous substances, but not in cases in which their waste contains below-background levels of *manmade* substances. *See* Opp. 14-15. Specifically, the government does not challenge — at least not expressly — the Second Circuit's earlier holding in this case that an exemption is appropriate in cases involving trace levels of naturally occurring hazardous substances. *See* 990 F.2d 711, 722 (2d Cir. 1993). But it nevertheless defends the Second Circuit's refusal in its opinion below to *extend* this exemption to manmade hazardous substances — by merely quoting the Second Circuit's *ipse dixit* assertion that its original exemption was limited to naturally occurring substances. Opp. 15 (quoting Pet. App. 10a).

The government does effectively concede that "manmade chemicals * * * are also present, in small amounts, throughout the environment." *Id.* This effective concession is unsurprising, for it reflects acknowledgments already made by

the EPA in its internal policy documents on CERCLA remediation, *see* Office of Solid Waste and Emergency Response, EPA, *Role of Background in the CERCLA Cleanup Program*, OSWER 9285.6-07P, at 7 (Apr. 26, 2002), and by at least one other federal agency in a regulation setting tolerable levels of PCBs — the particular pollutant at issue here, *see* 21 C.F.R. § 109.30(a). But even if those statements "do[] not address the scope of CERCLA liability," Opp. 15 n.4 — and we have never contended that they do — they demonstrate that there is no justification for treating manmade substances differently from naturally occurring ones, since both have "background" levels. The only logical conclusion, therefore, is *either* (i) that CERCLA liability should attach whenever waste contains only below-background levels of naturally occurring *or* manmade hazardous substances (a position, again, that the government does not expressly embrace), *or* (ii) that CERCLA liability should *not* attach when waste contains only below-background levels of naturally occurring *or* manmade hazardous substances (as we contend). In either case, the Second Circuit's decision misstates the rule — and *certiorari* is appropriate to determine the correct rule.

3. The government does suggest that "[c]ourts have consistently held that CERCLA's definition of hazardous substance does not include a '[q]uantity or concentration' requirement," *id.* at 4, and that "courts have * * * concluded, without exception, that CERCLA liability may arise from the improper disposal of wastes containing small amounts of hazardous substances," *id.* at 13. But the circuit decisions the government cites in this regard do nothing to undermine the critical proposition asserted by Alcan: namely, that CERCLA liability should not attach when waste contains only below-background trace *concentrations* of hazardous substances.

For example, although the Second Circuit, in its earlier opinion in this case, did state that "'[q]uantity or concentration is not a factor'" in the statutory *definition* of "hazardous

substance," 990 F.2d at 720 (quoting *B.F. Goodrich Co. v. Murtha*, 958 F.2d 1192, 1200 (2d Cir. 1992)), it of course recognized an exemption from *liability* for waste containing trace concentrations of naturally occurring hazardous substances, *see id.* at 722. Similarly, the Third Circuit has recognized only that "CERCLA liability does not depend on the existence of a *threshold quantity* of a hazardous substance" — not that CERCLA liability *ultimately* attaches even when waste contains only a trace *concentration* of a hazardous substance. *United States v. Alcan Aluminum Corp.*, 964 F.2d 252, 260-61 (3d Cir. 1992) (emphasis added). Finally, the Fifth Circuit, while likewise recognizing that the "plain statutory language fails to impose any quantitative requirement," expressly *rejected* the proposition that "CERCLA liability attaches upon the release of *any* quantity of a hazardous substance," reasoning that such an interpretation would "permit CERCLA's reach to exceed its statutory purposes by holding parties liable who have not posed any threat to the public or the environment." *Amoco Oil Co. v. Borden, Inc.*, 889 F.2d 664, 669-70 (5th Cir. 1989).[1]

4. The government's attempts to distinguish the circuit decisions cited in the petition, *see* Opp. 16-17, are likewise unavailing. As to the First Circuit's decision in *Massachusetts v. Blackstone Valley Electric Co.*, 67 F.3d 981 (1995), the government claims that the decision stands only for the proposition that "it was not sufficient that [ferric ferrocyanide] falls within a general category of 'cyanides' listed under the Clean Water Act; rather * * * the substance must be more specifically identified in one of the lists of hazardous substances

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[1] The D.C. Circuit's decision in *Eagle-Picher Industries, Inc. v. EPA*, 759 F.2d 922 (1985), is distinguishable. The issue in that case was whether mining wastes and fly ash could constitute "hazardous substances" notwithstanding the suspension of regulation of those substances under the Solid Waste Disposal Act. *See id.* at 926-27. The court held that they could, but only on the narrow factual basis that the petitioners failed to demonstrate that all or virtually all mining waste and fly ash contained only trace amounts of hazardous substances. *See id.* at 928.

that Section 101(14) of CERCLA incorporates by reference." Opp. 17 (citing 67 F.3d at 984-85). The cited portion of the First Circuit's decision, however, merely summarizes the statutory scheme and the district court decision that was under review. And in any event, the government's characterization of the First Circuit's holding is inaccurate. Far from holding that ferric ferrocyanide could not constitute a "cyanide" and thus a CERCLA-regulated "hazardous substance," the court merely rejected the EPA's "total cyanide" test for determining whether ferric ferrocyanide *did* constitute a regulable "cyanide," *see Blackstone*, 67 F.3d at 988-91, and referred the case back to the EPA for a new determination, *see id.* at 993. In doing so, the court reasoned that the EPA's "total cyanide" test could lead to "nonsensical results" because many everyday substances contain cyanide molecules. *Id.* at 989-90. It added that such a test would be "untenably overinclusive" because it would sweep in substances that "no one, including the EPA, would categorize * * * [as] within the meaning of * * * CERCLA." *Id.* at 990. The First Circuit's decision is plainly in tension with the decision below, which would bring innocuous substances such as milk and rainwater within CERCLA's ambit.

As to the Fifth Circuit's decision in *Licciardi v. Murphy Oil U.S.A., Inc.*, 111 F.3d 396 (1997), the government contends that the decision held only that "[the plaintiff] presented 'no evidence that the found "release" justified the response costs.'" Opp. 17 (quoting 111 F.3d at 399). Two sentences earlier in the opinion, however, the court reiterated its earlier holding from *Amoco Oil* that "liability does not attach to the release of '*any* quantity of a hazardous substance.'" 111 F.3d at 399 (quoting *Amoco Oil*, 889 F.2d at 670-71); *see also id.* at 398 (same). Contrary to the government's suggestion, therefore, *see* Opp. 17, the Fifth Circuit did indicate that a company could not be held liable under CERCLA for disposing of *de minimis* amounts of hazardous substances. The Fifth Circuit's decision in *Licciardi*, like the First Circuit's decision in *Blackstone*, is in

tension with the decision below.

5. In the end, the government is left only with the weak suggestion that Alcan presented insufficient evidence below to establish that its emulsion contained below-background concentrations of PCBs. *See* Opp. 15-16, 19. That suggestion is not only inaccurate, in light of the unrebutted (and unobjected-to) evidence introduced by Alcan at trial, *see, e.g.*, C.A. App. 1196, but also irrelevant. Precisely because of its holding that CERCLA liability attaches even when waste contains below-background levels of manmade hazardous substances, the district court made no factual finding as to the level of PCBs in Alcan's emulsion, concluding only that the government established that Alcan's emulsion contained *some* level of PCBs. *See* Pet. App. 50a. The Second Circuit agreed. *See id.* at 9a-10a. Indeed, if the courts below had concluded, as a factual matter, that there *were* above-background PCB levels in Alcan's emulsion, they would have had no need to reach the *legal* question whether CERCLA liability attaches to disposals of below-background levels of manmade hazardous substances.

To the extent that there are any factual disputes as to whether Alcan's emulsion contained below-background levels of PCBs — and it is Alcan's view that there is not, *see* Pet. 12 — those disputes could and should be resolved on remand after this Court establishes the correct legal standards.[2] Critically, the burden of proof on the threshold question of whether a generator disposed of covered "hazardous substances" — unlike

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[2] Significantly, it is undisputed that the government presented no evidence below as to the quantity of PCBs in Alcan's emulsion, but only evidence that PCB contamination was subsequently found at the plant whence that emulsion came. *See* Pet. 12 n.3; Opp. 16. Moreover, although the government suggests that, even if the PCBs or other substances in Alcan's emulsion existed only at below-background levels, they could conceivably concentrate (say, if water in the emulsion evaporated) and reach above-background levels. *See id.* at 16 n.5. But the district court ultimately did not find that such concentration either did occur or was likely to occur, *see* C.A. App. 192 n.5, and this issue, too, could readily be addressed on remand.

the burden on the subsequent question of whether damages are divisible — would presumably lie not with the defendant, but rather with the government. *See, e.g.*, *Alcan*, 964 F.2d at 264. The underlying legal question whether a company could be subject to CERCLA liability for disposing of substances containing only trace amounts of manmade pollutants is therefore squarely before this Court, and *certiorari* should be granted to resolve it.

B. The Second Circuit Erred By Imposing Joint and Several CERCLA Liability Merely For Disposing Of Harmless Waste, On The Ground That It Could "Spread" Hazardous Substances In Waste Disposed Of By Others.

1. The government likewise offers little defense of the Second Circuit's further holding that generators may be held jointly and severally liable even if their waste contains only trace amounts of hazardous substances, simply because that waste might "spread" the hazardous substances disposed of by others. *See* Opp. 19-20. The government cites no cases for its assertion, antithetical to common sense, that the fact that waste has "mobilizing effects" precludes a generator from obtaining any apportionment of its liability. Instead, the government contends that "[p]etitioner overlooks the fact that it did not send a pure oil-water emulsion to the PAS and Fulton sites; rather, it sent a mixed industrial waste stream, consisting of water, oil, PCBs and other hazardous substances that, in itself, qualified as a hazardous substance." *Id.* at 20.[3] That contention, however, is entirely unresponsive. Even assuming that the presence of minimal amounts of PCBs in Alcan's waste sufficed to transform that waste into a "hazardous substance," the Second

[3] Although the government states that Alcan's emulsion contained "other hazardous substances" beyond PCBs, the district court did not find that any of those other hazardous substances, all of which were naturally occurring, existed in above-background levels. *See, e.g.*, 755 F. Supp. 531, 536-39 (N.D.N.Y. 1991); Pet. App. 35a-36a; C.A. App. 191 n.5.

Circuit effectively used the presence of those trace amounts as a bootstrap to subject Alcan to full joint and several liability without any possibility of apportionment. If the Second Circuit's decision is allowed to stand, full joint and several liability could attach even to companies that have disposed only of what are undeniably harmless substances.

Nor is there any question that the lower courts' refusal to apportion liability rested solely on their determination that the *non-hazardous* liquid substances in Alcan's emulsion — namely, water and oil — produced "mobilizing effects" on hazardous substances disposed of by others. *See* Pet. App. 12a-13a (Second Circuit); *id.* at 64a (district court) (noting that "a singularly non-toxic substance can physically interact with other substances and contribute to release and response costs"). There was no specific finding below that the alleged PCBs in Alcan's emulsion somehow interacted with any other hazardous substance in the emulsion, nor that the PCBs in Alcan's emulsion interacted consequentially with hazardous substances produced by others. *See* Pet. 13. The Second Circuit's legal conclusion that apportionment of liability is precluded whenever non-hazardous components of waste have "mobilizing effects" is therefore ripe for this Court's review.[4]

2. The government also misfires in contending that Alcan inaccurately characterizes the decision below by suggesting that it holds Alcan "entirely" liable for the cleanup costs of the two sites. *See* Opp. 21. In fact, we have already noted that Alcan did receive an offset for the share of liability paid by the settling defendants, even though the Second Circuit refused to further apportion Alcan's liability. *See, e.g.*, Pet. 1, 14. Nonetheless, the mere fact that Alcan's emulsion "constitute[d]

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[4] As *amici* Washington Legal Foundation *et al.* note, it is questionable whether the fact that waste had "mobilizing effects" even increases the cost of recovery at all. Such waste "may have actually *diluted* the hazardous substances disposed of by others at the site, and thus[] ameliorated any environmental harm." Br. of Washington Legal Foundation *et al.* 16.

approximately 25 percent of the total volume of waste material" sent to the PAS site, Opp. 21, does not imply that Alcan should necessarily bear 25 percent of the liability. Such a slavishly volumetric approach is inappropriate where, as here, the generator's waste was never proven to be harmful or give rise to any remediation costs. *Cf. Control Data Corp. v. S.C.S.C. Corp.*, 53 F.3d 930, 937-38 (8th Cir. 1995) (rejecting strict volumetric approach on ground that "those who release substances that are more toxic are more responsible for the hazardous condition"). And the government does not deny that a future defendant in Alcan's position could be liable for most or even all cleanup costs, should the government choose either to settle too cheaply with other generators, or, in the extreme case, not to pursue any other generators at all.

3. Finally, the government claims that Alcan's assertions about the current breadth of CERCLA liability are based on mere "speculation and unsubstantiated anecdotes." Opp. 13. Even before the decision below, however, actual examples of CERCLA's breadth were not hard to find. *See, e.g.*, Ted Cilwick, *Big Polluters Find Way to Clean Up the Balance Sheet: Soak the Little Guy*, Salt Lake Trib., Nov. 8, 1992, at A10 (citing, *inter alia*, contribution action against pizza parlor for disposing of pizza boxes and other garbage). The Second Circuit's decision gives the government a green light to prosecute virtually anyone for violating CERCLA, and establishes a rule under which "liability is based more on a defendant's ability to pay * * * than on culpability." Cathleen Clark, *Should The Butcher, The Baker And The Candlestick Maker Be Held Responsible For Hazardous Waste?*, 1994 Utah L. Rev. 871, 874. Given these draconian implications, the Court's review is needed.

CONCLUSION

The petition for *certiorari* should be granted.

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NO. 03-433

IN THE

SUPREME COURT OF THE UNITED STATES

ALCAN ALUMINUM CORPORATION

Petitioner,

v.

UNITED STATES OF AMERICA
AND STATE OF NEW YORK

Respondents.

On Petition for Writ of Certiorari to the
United States Court of Appeals for the Second Circuit

BRIEF *AMICUS CURIAE* OF ATLANTIC STATES LEGAL FOUNDATION, INC. IN SUPPORT OF PETITIONER

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STATEMENT OF INTEREST OF *AMICUS CURIAE*

Atlantic States Legal Foundation, Inc. (the "Foundation") is a not-for-profit corporation established in 1982 to promote and protect the environment. The Foundation is a membership organization headquartered in Syracuse, New York, and it is active throughout the United States and abroad.

The Foundation provides legal, technical and organizational assistance on environmental issues to citizen organizations, individuals and local governments. The Foundation is active in projects involving watershed restoration, pollution control, environmental policy, environmental justice, and community education. The Foundation also brings lawsuits against corporate polluters under the citizen suit provisions of the major federal environmental statutes. In addition, the Foundation regularly files amicus briefs in cases that address important environmental issues.

The Foundation has a strong interest in this case because the Second Circuit failed to apply sound scientific principles in ruling on the Petitioner's environmental liability. The failure of courts to apply the most basic scientific principles can undermine efforts of the environmental advocacy community and be detrimental to the environment. The Foundation and other environmental advocates often rely on scientific models and laboratory testing to prove contamination exists and to determine the success of remediation efforts. If courts do not apply sound scientific principles, polluters may escape liability and site remediation efforts may fall short. While in this case Petitioner is an alleged polluter that is trying to escape or limit its liability, the Foundation nonetheless supports the

petition for a writ of *certiorari* because of its strong interest in the federal courts' use of sound scientific principles in all environmental cases. [1]

INTRODUCTION AND SUMMARY OF ARGUMENT

The Foundation believes it is vitally important for the Court to grant the writ of *certiorari* to supply needed guidance to the courts on how to apply scientific principles to environmental issues. The Court has addressed the admissibility of scientific and other expert opinions in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993) and *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999). Once such opinions are admitted or otherwise made part of the record, courts must apply the expert opinions properly to assure their decisions are based on sound scientific evidence. The integrity of court decisions is threatened if courts disregard valid scientific models or ignore laboratory test results without sound reasons. This case provides the Court with the ideal opportunity to provide needed guidance on the role of scientific models and laboratory test results in decisions that turn on the presence or absence of chemical substances.

This case involves the liability of Petitioner Alcan Aluminum Corporation ("Alcan") under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601-9675. During the 1970s, Alcan sent waste emulsion to a site operated by Pollution Abatement Services (PAS) and to another site operated by Fulton Terminals, Inc. *See* Pet. App. 34a.

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[1] Letters of consent from all parties have been filed with the Clerk of the Court. No counsel for any party authored this brief in whole or in part. Petitioner Alcan Aluminum Corporation made a monetary contribution to the preparation of this brief.

The Second Circuit stated Alcan can escape joint and several liability under CERCLA "if it either succeeds in proving that its oil emulsion, when mixed with other hazardous wastes, did not contribute to the release and clean-up costs that followed, or contributed at most to only a divisible portion of the harm." *United States v. Alcan Aluminum Corp.*, 315 F.3d 179, 185 (2d Cir. 2003) (citations omitted), reprinted at Pet. App. 2a-17a, 8a. If Alcan can show its emulsion did not contribute to the release and clean-up costs, it escapes all liability. If Alcan cannot make this showing, it can nonetheless limit its liability by showing its emulsion contributed to only a divisible portion of the harm. *See id.* at Pet. App. 8a, 10a.

The Second Circuit elaborated on what Alcan needs to show to escape all liability. The court stated that the avoidance of all liability is a "special exception" available only if "the company could prove that its pollutants did not contribute more than background contamination and also cannot concentrate." *Id.* at Pet. App. 8a (citations omitted).

If Alcan does not qualify for the special exception, it can still limit its liability by presenting "evidence relevant to establishing divisibility of harm." *Id.* If it makes this showing, Alcan is liable for an apportioned share of outstanding costs.

After a bench trial, the district court gave two independent reasons why Alcan could not escape all liability. First, the district court found Alcan's waste emulsion contained polychlorinated biphenyls (PCBs). The court stated there are no naturally occurring background levels of PCBs, so the special exception was not available to Alcan. *See United States v. Alcan Aluminum Corp.*, 97 F. Supp. 2d 248, 268-69 (N.D.N.Y. 2000), reprinted at Pet. App. 18a-

64a, 50a. Second, the court found that Alcan did not meet its burden of showing that metals in its emulsion could not concentrate. The court predicated this decision in part on a finding that Alcan's emulsion contained nickel, which was detected at above background levels at the PAS and Fulton sites. *See id.*

The Second Circuit held, without elaboration, that the record contained "ample evidence" to support the district court's finding that Alcan's waste emulsion contained nickel and PCBs. Pet. App. 10a. The Second Circuit then stated the special exception was not available to Alcan because of the presence of PCBs in Alcan's emulsion. *See id.* The Second Circuit did not reach the issue of whether its nickel ruling would provide an independent ground for making the special exception unavailable.

The Second Circuit's decision does not set forth the specific evidence it relied on for its ruling about the presence of PCBs and nickel. However, to find PCBs in the emulsion, the Second Circuit would have had to disregard scientific models about PCB behavior in Alcan's emulsion at the two sites. These models were provided by a court-appointed expert, and the court had no basis to disregard them. To find nickel in the emulsion, the Second Circuit would have had to accept a hypothesis by two experts about the presence of nickel in Alcan's emulsion. However, the hypothesis was invalidated by numerous laboratory test results showing nickel was not detected in the emulsion. The court had no basis to ignore the test results. Where unambiguous testing data proved a scientific hypothesis was wrong, the Second Circuit should have thrown out the hypothesis, not the data.

ARGUMENT

THE SECOND CIRCUIT ERRED BY SUBJECTING A COMPANY TO CERCLA LIABILITY WHERE SUCH LIABILITY COULD BE FOUND ONLY IF THE COURT DISREGARDED, FOR NO SOUND REASON, SCIENTIFIC MODELS AND LABORATORY TEST RESULTS.

A. The Second Circuit Erred By Concluding That A Company Is Subject To CERCLA Liability Where Such A Conclusion Could Be Made Only If The Court Ignored, For No Sound Reason, Scientific Models That Bear Directly On The Presence Or Absence Of Hazardous Substances.

The Second Circuit should not have the discretion to disregard, for no sound reason, scientific models that bear directly on the question of the presence or absence of hazardous substances. In this case, the court-appointed expert's models described how PCBs in Alcan's emulsion would have behaved at the PAS and Fulton sites if the emulsion had contained PCBs. *See* C.A. App. 1070, 1077. These models are in the expert's report that is part of the record in this case. *See* Pet. App. 22a n.3.

The government tested for the presence of PCBs at the locations where the models said they should be present if they had been in Alcan's emulsion. When one considers the undisputed test results at the sites, the only conclusion that is consistent with these models is that Alcan's emulsion did not contain PCBs. These models should have been dispositive, but the Second Circuit apparently relied instead on indirect, circumstantial evidence that was not supported by the test results at the sites.

1. PAS Site

At the PAS site, Alcan's waste emulsion, together with wastes from many other entities, was deposited into a large lagoon. The lagoon was stratified into three layers: a top oily layer, a middle aqueous layer, and a bottom sludge layer. *See* Pet. App. 29a. The district court found that Alcan's emulsion initially occupied the middle aqueous layer and eventually broke down so some of the waste likely would have ended up in the top oily layer. *See* Pet. App. 43a.

The court-appointed expert provided a scientific model for how PCBs in Alcan's emulsion would behave in the lagoon. He stated PCBs from Alcan's emulsion would largely associate with the top oily layer and the bottom sludge layer. *See* C.A. App. 1070, 1077.

Government testing of the lagoon found PCBs only in the top oily layer, not in the bottom layer. *See* Pet. App. 43a. The model says if PCBs had been in the emulsion, some would have accumulated in the bottom sludge layer. Since none were in the bottom layer, the conclusion from the model is that no PCBs had been in Alcan's emulsion.

The Second Circuit did not elaborate on its finding that the emulsion contained PCBs, so we do not know why the Second Circuit disregarded the model. The district court, however, provided the reasons for its own finding. The court-appointed expert's model was about PCB behavior *in the emulsion* in the lagoon, but the district court apparently thought the model was about PCB behavior *anywhere* in the lagoon. Because PCBs unquestionably resided in the top oily layer, the court reasoned, the expert's opinion that PCBs would also concentrate in the bottom layer had to be wrong,

because no PCBs in fact were found in the bottom layer. *See* the district court's August 8, 2000 Decision and Order denying Alcan's motion for reconsideration, C.A. App. 196-97 n. 9 & 10. However, the model did not address how PCBs in the top oily layer would behave, because the court-appointed expert was not asked to address this. *See* C.A. App. 1077, 1070. The district court judge thus wrongly threw out the model and the conclusion that PCBs were not present in Alcan's emulsion.

The district court also stated that variability in the lagoon's layers cast doubt on the conclusiveness of the PCB testing. *See* Pet. App. 43a-44a. However, there is no evidence that PCBs would have accumulated as discrete deposits that would be easily missed by sampling. Moreover, sludge variability was not an issue at the Fulton site, discussed *infra*. In light of the sludge test results at both the PAS and Fulton sites, the district court judge should not have concluded its own expert's model was wrong.

2. Fulton Site

The parties stipulated that the Fulton site was contaminated by leaks and spills from various tanks, including Tank One. *See* C.A. App. 236-37. They also stipulated Alcan's emulsion had been stored in Tank One at the Fulton site. *See id.* at 236. When the government tested the contents of Tank One, the tank was empty except for sludge in the bottom. *See* Pet. App. 44a. PCBs were not detected in the sludge. *See id.* Nor were PCBs detected in the soils surrounding Tank One. *See* C.A. App. 197.

The court-appointed expert provided a scientific model for how any PCBs in Alcan's emulsion would have behaved in the tank at Fulton. He stated he would have expected PCBs to accumulate in the sludge layer at the

bottom of the tank. *See* C.A. App. 1070, 1077. Since PCBs were not found in the sludge, the conclusion from the model is that no PCBs had been in Alcan's emulsion.

Again, the Second Circuit does not elaborate on why it found PCBs in Alcan's emulsion, so we do not know why the Second Circuit disregarded this model. The district court's opinion shows the district court simply ignored the model:

> While no PCBs were found in the sludge-like material remaining in the bottom of the tank, Alcan's emulsion was not present either. Neither Alcan nor the government suggests that in the face of evidence that Alcan disposed of emulsion and a stipulation that this emulsion was stored in Tank One, the Court should conclude that the absence of the emulsion at the time of testing suggests that the emulsion was never there. Accordingly, the Court will not conclude based on the absence of PCBs in Tank One's sludge that the tank never contained PCBs.

Pet. App. 44a.

The district court does not provide any scientific explanation of why it completely ignores its expert's model. The court says the absence of emulsion at the time of testing does not prove the emulsion had never been there. That is certainly true and no one disputed the emulsion's presence, but it is irrelevant to the model and the question of whether PCBs had been present in the emulsion. The only other evidence in the record about whether PCBs in Alcan's emulsion would concentrate in sludge supports the model.

See C.A. App. 515. Again, the district court wrongly threw out the model, which predicted how any PCBs in Alcan's emulsion would have behaved in the Fulton tank, and which should have been dispositive absent evidence the model or test results were flawed.

The Second Circuit failed to give credence, for no sound reason, to the court-appointed expert's model and apparently relied on indirect, circumstantial evidence that is not supported by the tank's sludge test results (nor by the soil test results for the area surrounding Tank One). The Second Circuit's failure to apply sound scientific principles was in error. The integrity of the federal courts in environmental cases is threatened if this type of failure is not addressed.

B. The Second Circuit Erred By Concluding That A Company Is Subject To CERCLA Liability Where Such A Conclusion Could Be Made Only If The Court Ignored, For No Sound Reason, Unambiguous Testing Data.

The Second Circuit upheld the district court's finding that nickel was present in Alcan's emulsion. *See* Pet. App. 10a. In light of its PCB ruling, the Second Circuit did not reach the question of whether its nickel ruling (or the presence of other metals) would provide an independent ground for making the special exception unavailable.[2] The Second Circuit did state, however, that its review of the district court's divisibility analysis is "predicated on" the fact that Alcan's waste emulsion contained nickel, other metals, and PCBs. *Id.* The presence or absence of nickel thus was a factor in the Second Circuit's divisibility analysis—an

[2] As discussed *supra*, the district court used the presence of nickel as one of the grounds to support its finding that the special exception was unavailable to Alcan. *See* Pet. App. 50a.

analysis that should never have been reached, because Alcan should have qualified for the special exception.

Laboratory tests exist to determine the types and concentrations of nickel and other metals in Alcan's emulsion. These tests unequivocally show whether nickel is present above the detection limit. In 1989, the U.S. Environmental Protection Agency (USEPA) took a number of emulsion samples at Alcan's Oswego plant, and two laboratories performed laboratory analyses on the samples.[3] *See* C.A. App. 1438-44. Nickel was not detected in any of the nineteen (19) validated laboratory analyses. *See* C.A. App. 1443-44, 1448-51, 1457-88. This should have ended the inquiry.

The Second Circuit's decision does not mention these laboratory tests or how the court could nonetheless conclude nickel was present. The district court judge initially said he was "not aware of any sampling results that indicate nickel was not in the emulsion." Pet. App. 36a. In his decision on Alcan's motion for reconsideration, the district court judge stated that the nickel test results were not conclusive because of poor laboratory quality assurance and control. *See* C.A. App. 190-91. While it is true the USEPA did not accept the results from one of the laboratories for quality control reasons, the USEPA did accept the metals results from the second laboratory, including the nineteen results showing no

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[3] The USEPA's report about the laboratory analyses states the metal constituents in the emulsion likely did not change between the period when Alcan sent its emulsion to the PAS and Fulton sites and 1989, when the USEPA took the samples at Alcan's factory. *See* C.A. App. 1444; *see also id.* at 543, 1012. The government introduced this report as Government Exhibit G-36 and relied on it for evidence as to what metals Alcan sent to the sites. *See* C.A. App. 545-48.

nickel was detected in the emulsion.[4] *See* C.A. App. 552, 557-58, 1443-44, 1448-51, 1457-88.

The district court found that nickel likely was present in Alcan's emulsion because of a hypothesis of both the court-appointed expert and a government expert. These experts noted that other metals had made their way into the emulsion during Alcan's manufacturing process and there was no reason to expect that nickel would not have done the same thing. *See* Pet. App. 35a-36a.

While this hypothesis may appear reasonable on its face, the Second Circuit and district court should not have accepted it. Rule 702 of the Federal Rules of Evidence states that an expert opinion can be considered only if, among other things, "the witness has applied the principles and methods reliably to the facts of the case." As this Court stated in

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[4] The USEPA sent the samples to two laboratories. One of the laboratories had poor quality control measures, and the USEPA threw out that laboratory's results as unreliable. The USEPA accepted the other laboratory's results. *See* C.A. App. 552, 557-58, 1443. That laboratory ran three (3) different types of analytical tests on each of its ten (10) samples, for thirty (30) tests in all. *See* C.A. App. 1443, 1448-51, 1457-88. Nineteen (19) of those results list the detection limit and unequivocally show nickel was not detected ("U" means "not detected." *See* C.A. App. 558. *See id.* at 603-04 for a definition of the term "detection limit"). Ten (10) results are invalid because of trip blank contamination, which meant those ten emulsion samples might also have been accidentally contaminated by outside sources ("B" means trip blank contamination—*see id.* at 559). No laboratory data sheet is provided in the USEPA report for one of the test methods for one sample. The district court mistakenly thought one data sheet found at C.A. App. 1456 showed nickel in Alcan's emulsion. *See* C.A. App. 191 n. 4. That data sheet, however, was for an analysis of a control sample (*not* the emulsion) containing known quantities of various metals and that analysis was performed to show the laboratory's procedures were properly calibrated.

Daubert, 509 U.S. at 590, "Proposed testimony must be supported by appropriate validation—*i.e.*, 'good grounds,' based on what is known." But the court-appointed expert and government expert relied on a hypothesis that is at odds with the measured data. This may be because neither seemed aware of the relevant data. When the government expert was cross-examined at trial, he maintained no analyses for nickel had been performed on the emulsion samples. *See* C.A. App. 1051-53. He acknowledged such analyses had been done only after he was shown the USEPA report. See C.A. App. 1055. The court-appointed expert stated in his letter to the district court that the concentrations of certain metals such as nickel had not been measured. C.A. App. 1071. This was incorrect, as the nickel concentrations *were* measured and were found to be below the detection limit.

This Court stated in *Daubert*, "Scientific methodology today is based on generating hypotheses and testing them to see if they can be falsified...." 509 U.S. at 593 (citation omitted). Unlike many areas of the law where there are no clear right or wrong answers, the laboratory tests in this case do inform the courts whether this particular hypothesis is right or wrong. The hypothesis is incorrect because the data (the 19 laboratory analyses) do not support it. Instead of throwing out the uncontroverted data, the Second Circuit should have thrown out the hypothesis, unless there is an independent reason to think the measurements were flawed.

The Second Circuit's failure to find the laboratory tests dispositive was in error and counter to the principles in *Daubert*. In light of the Second Circuit's errors regarding scientific models and laboratory testing, this Court needs to provide guidance on the use of such models and test results

to assure the integrity of future federal court decisions in environmental cases.

CONCLUSION

For the foregoing reasons, the Court should grant the petition for a writ of *certiorari*.

Dated: October 23, 2003

Respectfully submitted,

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DEC 9 - 2003

(4)

No. 03-433

IN THE

Supreme Court of the United States

October Term, 2003

ALCAN ALUMINUM CORPORATION

Petitioner,

v.

UNITED STATES OF AMERICA
AND THE STATE OF NEW YORK

Respondents.

ON PETITION FOR WRIT OF CERTIORARI TO THE
UNITED STATES COURT OF APPEALS
FOR THE SECOND CIRCUIT

BRIEF *AMICUS CURIAE* OF ATLANTIC LEGAL FOUNDATION IN SUPPORT OF PETITIONER

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INTEREST OF *AMICUS*

Atlantic Legal Foundation ("ALF") is a non-profit public interest law firm. One of its mandates is to ensure that sound science is used in the adjudicatory process. In pursuing that mandate, the Foundation has filed numerous *amicus* briefs, often on behalf of prominent scientists and scholars in important cases implicating scientific issues. It has submitted briefs in numerous federal and state courts, and its briefs have been cited with approval by, among others, the majority opinions in *Daubert v. Merrell Dow Pharamaceuticals* and *Kumho Tire Co. v. Carmichael.*[1,2,3]

The Foundation has a strong interest in this case because the trial court and Court of Appeals for the Second Circuit failed to apply sound scientific principles. ALF supports the petition for a writ of *certiorari* because of its belief that federal courts' should use sound scientific principles in all cases involving scientific evidence. We believe that the lower courts' decisions in this case are inimical to the application of sound scientific principles to the regulatory process, to the environmental enforcement process, and to the adjudicatory process.

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[1] Counsel for the parties have consented to the filing of *amicus* briefs by letters filed with the Clerk of the Court.

[2] Pursuant to Supreme Court Rule 37.6, *amici curiae* state that this brief was not prepared, written, funded or produced by any person or entity other than *amicus curiae* or its counsel.

[3] Atlantic Legal Foundation is affiliated with Atlantic States Legal Foundation, which is also filing an *amicus* brief in support of Petitioner.

PRELIMINARY STATEMENT AND STATEMENT OF THE CASE

ALF believes it is important for this Court to grant *certiorari* to provide guidance to the lower courts on applying scientific principles in cases tried to the bench. The Court has addressed the admissibility of scientific and other expert opinions in jury trials in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), *General Elec. Co. v. Joiner*, 522 U.S. 136 (1997) and *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999). Those cases involved the trial court's "gatekeeper" responsibilities to ensure that only relevant and reliable scientific or other expert testimony reach a lay jury.

However, we submit, even in a bench trial, where the "gatekeeper" role is at least attenuated, courts must ensure that their decisions are based on sound scientific evidence. The integrity of adjudicatory process is impaired if courts ignore properly derived test results and conclusion drawn from them without sound reasons. This case provides the Court with the opportunity to provide guidance on the use of scientific hypotheses or models, laboratory tests or other methods used to test those hypotheses, and scientific opinions in cases that involve the presence of chemical substances and their effects on health or the environment.

This case involves the liability of Petitioner Alcan Aluminum Corporation ("Alcan") under the Comprehensive Environmental Response, Compensation, and Liability Act

(CERCLA), 42 U.S.C. §§ 9601-9675. During the 1970s, Alcan sent waste emulsion to sites operated by Pollution Abatement Services (PAS) and by Fulton Terminals, Inc. in New York State *See* Pet. App. 34a.[4] The United States and the State of New York (collectively "the government") brought this CERCLA action against Alcan seeking response costs incurred in remedying environmental contamination at the two hazardous waste sites. On January 15, 1991 the district court granted summary judgment in favor of the government against Alcan, finding Alcan jointly and severally liable for certain response costs under Section 107 CERCLA, 42 U.S.C. § 9607 (as amended). *See United States v. Alcan Aluminum Corp.*, 755 F. Supp. 531 (N.D.N.Y. 1991).

In 1993, the Second Circuit affirmed the district court on liability issues, but remanded on the issue of damages. In so doing, the Second Circuit, as it later explained, created a "special exception" to "excuse a responsible party from all CERCLA liability only in instances where (1) a party contributed hazardous substances to a site in quantities that did not exceed background levels and (2) the hazardous substances were incapable of concentrating." *United States v. Alcan Aluminum Company*, 315 F.3d 179, 186 (2d Cir. 2003) (citing *United States v. Alcan Aluminum Corp.*, 990 F.2d 711, 722 (2d Cir. 1993)). The Second Circuit placed the burden of proof on the party seeking to qualify for the special exception — in this case, Alcan. *See United States*

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[4] The background and procedural history of this case is canvassed in the Second Circuit's opinion in *United States v. Alcan Aluminum Corp.*, 990 F.2d 711 (2d Cir. 1993) and various unpublished opinions in this case.

v. Alcan Aluminum Company, 315 F.3d 179, 185 (citing *United States v. Alcan Aluminum Company*, 990 F.2d at 722).

The Second Circuit stated that the avoidance of all liability is a "special exception" available only if "the company could prove that its pollutants did not contribute more than background contamination and also cannot concentrate." *Id.* at Pet. App. 8a (emphasis supplied, citations omitted). If Alcan did not qualify for the special exception, it could still limit its liability by presenting "evidence relevant to establishing divisibility of harm" and would thus be liable for an apportioned share of outstanding remediation costs. *Id.*

At the bench trial in the district court, Alcan showed, based on scientific testing and expert testimony, that the only CERCLA "hazardous substances" (cadmium, chromium, copper, lead and zinc compounds) in the emulsion were below background levels. A-224, 342, 346-349, 1188. Alcan also demonstrated that the emulsion disposed of at PAS and Fulton did not contain nickel, PCBs or VOCs. *See* 97 F. Supp.2d at 267. Alcan's proof consisted of scientific testing, most of which was conducted by the government[5], and of testing performed at other Superfund sites where the emulsion was disposed of. A-330-341, 377-378.

The government abandoned its arguments concerning the below background metals that they initially alleged gave rise to liability, and instead attempted to show that there were other

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[5] Alcan's test results, which the Court rejected, were consistent with those of the government.

hazardous substances in the emulsion such as nickel, PCBs and VOCs. The government relied on testimony of their experts to support their position.

The district court gave two reasons why Alcan could not escape all liability. First, it found Alcan's waste emulsion contained polychlorinated biphenyls (PCBs). The government argued, and the trial court found, that because there are no naturally occurring background levels of PCBs, the special exception was not available to Alcan. *See United States v. Alcan Aluminum Corp.*, 97 F. Supp. 2d 248, 268-69 (N.D.N.Y. 2000)[6] Second, the trial court found that Alcan did not meet its burden of showing that metals in its emulsion could not concentrate. The court predicated this decision in part on a finding that Alcan's emulsion contained nickel, which was detected at above background levels at the PAS and Fulton sites. *See id.*

The Second Circuit held, without explanation, that the record contained "ample evidence" to support the district court's finding that Alcan's waste emulsion contained nickel and PCBs. Pet. App. 10a. The Second Circuit then stated the special

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[6] However, EPA itself has issued a policy guidance document on the use of background concentration during the CERCLA remedial investigation process in which background concentrations for CERCLA purposes of man-made ("anthropogenic") substances are set, not at zero as the government contended in the trial and appellate courts, but at the level representing a substance's concentration in the environment as a result of activities not specifically related to the CERLCA release in question. U.S. EPA, Office of Solid Waste and Emergency Response, Office of Emergency and Remedial Response, "Role of Background in the CERCLA Cleanup Program," OSWER 9285.6-07P (April 26, 2002) at 3, 5, 7.

exception was not available to Alcan because of the presence of PCBs in Alcan's emulsion. *See id.* The Second Circuit did not reach the issue of whether its nickel ruling would provide an independent ground for making the special exception unavailable[7].

The Second Circuit's decision does not cite or specifically describe the evidence it relied on for its ruling on the presence of nickel and PCBs. In finding the presence of PCBs in the emulsion, the trial court disregarded test data scientific and scientific models of the behavior of PCBs in Alcan's emulsion at the two sites provided by the trial court's own expert. To find nickel in the emulsion, the trial court accepted a hypothesis by two experts about the presence of nickel in Alcan's emulsion; but that was "falsified" by numerous laboratory test results, including results of tests performed by the U.S. Environmental Protection Agency (EPA) and the New York State Department of Environmental Conservation (DEC) showing that nickel was not detected in the emulsion.

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[7] The Second Circuit affirmed the district court solely on the basis of the district court's erroneous understanding that Alcan's emulsion contained above background PCBs.

> The finding that Alcan's waste emulsion contained PCBs is particularly significant because — as the district court properly ruled — it disqualifies Alcan from escaping all CERCLA liability. . . . Because Alcan's emulsion was contaminated with PCBs, which are man-made substances without natural background levels, Alcan cannot escape liability under the special exception this court articulated.

315 F.3d 179 at 186 (internal citation omitted).

The trial court had no basis for ignoring the test results. To support its findings and conclusions, the district court arbitrarily rejected the government's own analytical testing data which showed that the emulsion contained neither nickel nor PCBs. In so doing, the district court relied on expert testimony that did not meet the requirements of *Daubert v. Merrell Dow Pharmaceuticals, Inc.* 509 U.S. 579 (1993) or Fed. R. Evid. 702, and that was recognized as "highly speculative" by the court's own expert.

Where reliable test data prove a scientific hypothesis to be wrong, the hypothesis should not be relied upon as the basis for imposing liability. The trial court, and the Second Circuit, should have rejected the hypothesis, not the data.

ARGUMENT

THE SECOND CIRCUIT ERRED IN CONCLUDING THAT CERCLA LIABILITY ATTACHES WHILE IGNORING TEST DATA THAT WAS CENTRAL TO THE ISSUE OF THE PRESENCE OF HAZARDOUS SUBSTANCES

A. The Lower Courts' Findings Were Based on Expert Opinion Testimony That Did Not Meet The *Daubert* Standard for Reliability or the Requirements of Fed. R. Evid. 702

Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993)[8], *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999)[9] and Fed. R. Evid. 702[10] require that to be admissible expert

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[8] In *Daubert*, the Court held that "... the requirement that an expert's testimony pertain to 'scientific knowledge' establishes a standard of evidentiary reliability." 509 U.S. at 590, and that "...our reference here is to evidentiary reliability–that is, trustworthiness....In a case involving scientific evidence, evidentiary reliability will be based upon scientific validity." *Id.* at 590, n.9.

[9] In *Kumho*, 526 U.S. at 149, the Court held that "...where [expert] testimony's factual basis, data, principles, methods, or their application are called sufficiently into question...the trial judge must determine whether the testimony has 'a reliable basis in the knowledge and experience of [the relevant] discipline,' citing *Daubert*, 509 U. S., at 592.

[10] Fed.R.Evid. 702 (1) requires hat the expert's "testimony [be]

(continued...)

testimony must be reliable. A fundamental measure of reliability is whether the expert's hypothesis has been tested or can be tested. *See* C. Hempel, PHILOSOPHY OF NATURAL SCIENCE 49 (1966) ("[T]he statements constituting a scientific explanation must be capable of empirical test"); K. Popper, CONJECTURES AND REFUTATIONS: THE GROWTH OF SCIENTIFIC KNOWLEDGE 37 (5th ed. 1989) ("[T]he criterion of the scientific status of a theory is its falsifiability, or refutability, or testability"), cited in *Daubert*, 509 U.S. at 593; *Kumho*, 526 U.S. at 145.

Although *Daubert* and its progeny have focused on the potential influence of unreliable testimony on a jury, nothing in the federal rules suggests that patently unreliable testimony that would be inadmissible in a jury trial can be admitted, used and relied upon in a bench trial.

A fundamental issue before the district court was whether Alcan's emulsion contained nickel or PCBs. The government relied upon expert testimony to support these contentions. The expert testimony offered by the government, and accepted by the district court, was unreliable because it was contradicted or unsupported by empirical data. This Court noted in *General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997), in the appropriate case, a trial court can "conclude that there is simply too great an analytical gap between the data and the opinion offered." Where, as here, the data and the expert opinion proffered by the same side are in-

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[10](...continued)
based upon sufficient facts or data; Fed.R.Evid. 702 (3) requires that the witness apply "the principles and methods reliably to the facts of the case."

consistent, the district court should not have credited the expert opinion offered by that side.

Chemical analyses of the emulsion discharges at the two sites at issue and at other sites were conducted to determine whether requisite amounts of nickel or PCBs could be detected. The tests failed to show the presence of nickel. Numerous tests conducted both by the government and Alcan consistently found neither nickel nor more than minute quantities of PCBs to be in the emulsion. Appendix in the Court of Appeals (hereafter "A-") 1055, 1467-68 (nickel), 1143-48 (PCBs). Rather than rely on this objective evidence, the district court attempted to discredit, explain away or ignore all of the scientific test data offered by the government, and instead to rely on the untested hypothesis of the governments' expert, rather than on the test data. In doing so, the district court ignored a cardinal principle of scientific inquiry and reasoning.

At the PAS site Alcan's waste emulsion, together with wastes from many other contributors, was deposited in a "lagoon," which was stratified into three layers: an oily top layer, an aqueous middle layer, and a lower sludge layer. *See* Pet. App. 29a. The district court found that Alcan's emulsion initially occupied the middle aqueous layer and eventually broke down so some of the waste likely would have ended up in the top layer. *See* Pet. App. 43a.

The court-appointed expert provided a hypothesis for how PCBs in Alcan's emulsion would behave in the lagoon: PCBs from Alcan's emulsion would largely associate with the top oily layer

and the bottom sludge layer. *See* A-1070, 1077. The governments' tests found PCBs only in the top oily layer, but not in the bottom layer. *See* Pet. App. 43a. This data either directly contradicted the hypothesis proffered by the court's expert, or, if interpreted consistent with that hypothesis, indicated that PCBs had not been present in Alcan's emulsion.

The court-appointed expert's hypothesis described how PCBs in Alcan's emulsion would have behaved if the emulsion had contained PCBs. *See* A-1070, 1077; Pet. App. 22a n.3. Because no PCBs were found in the emulsion or at locations where the emulsion had been discharged, the only conclusion consistent with these tests and the expert's hypothesis is that Alcan's emulsion did not contain PCBs. This conclusion should have been dispositive. The Second Circuit apparently relied instead on indirect, circumstantial evidence that was not supported by the test results at the sites.

The Second Circuit did not elaborate on its finding that the emulsion contained PCBs, but the trial court provided the reasons for its finding. The court-appointed expert's model was about PCB behavior *in the emulsion* in the lagoon, but the district court apparently believed, incorrectly, that the model was about PCB behavior *anywhere* in the lagoon. Because PCBs were present only in the top layer, the district court believed that the expert's opinion that PCBs would also concentrate in the bottom layer must be wrong, because no PCBs were found in the bottom layer. *See* Decision and Order, August 8, 2000, denying Alcan's motion for reconsideration, A-196-197 n. 9 & 10. However, the court-appointed expert was not asked to address how PCBs in the top

oily layer would behave, *see* A-1070, 1077, so the district court judge incorrectly discarded the model and its own expert's conclusion that PCBs were not present in Alcan's emulsion. The court-appointed expert's model was thus consistent with the data, and there was no fact-based reason for disregarding it, even though it would lead to a conclusion contrary to the one the trial court wanted to reach.

The district court also stated that variability in the lagoon's layers cast doubt on the conclusiveness of the PCB testing. *See* Pet. App. 43a-44a. However, there is no evidence that PCBs would have accumulated as discrete deposits that probably would be missed by sampling. In light of the sludge test results at both the PAS and Fulton sites, the trial court should not have concluded its own expert's model was wrong.

Without any data to support a finding of the presence of PCBs in the emulsion, the district court relied on the hypothesis of the government's expert, Mr. James Connolly, the premise for which the district court's own expert, Professor Driscoll, deemed "highly speculative."A-1070 and A-1076-1079. Mr. Connolly stated that the contamination of the hot mill with PCBs discovered in the mid-1980s could not have been caused by a single event in 1983 because he believed that the extent of concentration of the PCBs in the concrete floor of the hot mill would have required a long period of time to displace the oil in the concrete. A-734, A-738-742.

Mr. Connolly's opinion was based on supposition or speculation concerning the materials involved, the condition of the

concrete and the activities that might have caused the contamination, all of which he conceded affected his conclusions. A-757-778. For example, Mr. Connolly had no knowledge of the equipment being used at Alcan's mill in the 1980s, the type of construction underway, or other factors that might affect his opinion. A-760-764. Instead, he relied on facts presented to him by plaintiffs' counsel. *Id.* Mr. Connolly made assumptions about the medium that introduced the PCBs based on his understanding of the operation of the plant which he gained from deposition testimony, testimony at trial and talking with another government expert during the trial, all of which occurred years after he reached his conclusion, which he had testified to in his deposition. A-768-770.

The district court's own expert, Professor Driscoll, described a fundamental element underlying Mr. Connolly's opinion as "highly speculative." in response to a series of questions from the district court itself. A-1070 and A-1076-1079. In *Kumho Tire, supra,* the expert's opinion was found to be unreliable when similarly unsupported opinion testimony was offered.

A proposition that can be tested (or "falsified") should be tested. Mr. Connolly's opinion clearly could have been tested, but never was. When asked if he had ever tested or was aware of studies conducted to determine the solubility rates for PCBs into a concrete-saturated matrix, he conceded that he had not. A-712-713. When asked if he or his firm was engaged in studies to determine the time at which oil began its penetration, he could not recall. A-714. Thus, on the core point of his testimony, the government's expert had no knowledge of anybody who had ever conducted

studies to confirm his hypothesis, nor did he have any recollection of conducting such a study himself. There was no confirmation of the physical and chemical principles which Mr. Connolly claims reflect the behavior of PCBs in a concrete-oil matrix. Indeed, Mr. Connolly admitted that the factual basis for his opinion was incomplete and that he had wanted to collect samples and conduct tests which he claimed that he could not do because discovery had closed. A-757.

The test data developed by every party to this litigation of the emulsion sent to PAS demonstrated the absence of significant, above background level, quantities of PCBs[11]. Although the district court tried to discredit those results or ignore them, the actual test data contradicts Mr. Connolly's untested hypothesis. The scientific method requires that the "highly speculative" hypothesis of Mr. Connolly be rejected.

The parties stipulated that the Fulton site was contaminated by leaks and spills from various tanks, including Tank One and that Alcan's emulsion had been stored in Tank One at the Fulton site.

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[11] As noted above, the Second Circuit found that since PCBs are not naturally occurring substances, there is no "background level." However, EPA itself has issued a policy guidance document on the use of background concentration during the CERCLA remedial investigation process in which background concentrations for CERCLA purposes of man-made ("anthropogenic") substances are set, not at zero as the government contended in the trial and appellate courts, but at the level representing a substance's concentration in the environment as a result of activities not specifically related to the CERLCA release in question. U.S. EPA, Office of Solid Waste and Emergency Response, Office of Emergency and Remedial Response, "Role of Background in the CERCLA Cleanup Program," OSWER 9285.6-07P (April 26, 2002) at 3, 5, 7.

See id. at 236-237. When the government tested the contents of Tank One, the tank contained only sludge in the bottom. *See* Pet. App. 44a. PCBs were not found in the sludge, *id.*, nor were PCBs found in the soil surrounding Tank One. *See* A-197.

The trial court's expert stated that he would expect PCBs to accumulate in the sludge layer at the bottom of the tank. A-1070, 1077. Since PCBs were not found in the sludge, the conclusion follows that PCBs had not been in Alcan's emulsion. The district court simply ignored that testimony:

> While no PCBs were found in the sludge-like material remaining in the bottom of the tank, Alcan's emulsion was not present either. Neither Alcan nor the government suggests that in the face of evidence that Alcan disposed of emulsion and a stipulation that this emulsion was stored in Tank One, the Court should conclude that the absence of the emulsion at the time of testing suggests that the emulsion was never there. Accordingly, the Court will not conclude based on the absence of PCBs in Tank One's sludge that the tank never contained PCBs.

Pet. App. 44a. The district court did not explain why it ignored its own expert's evidence. It is true that the absence of emulsion at the time of testing does not prove the emulsion had never been there; indeed, no one disputed the presence of emulsion. But the real issue was whether PCBs at above background level had been present in the emulsion. The only other evidence on whether PCBs in Alcan's emulsion would concentrate in sludge is consistent with the trial court's expert's opinion. *See* A-515.

The district court's refusal to accept the results of the numerous tests that did not support Connolly's conclusion concerning the existence of PCBs in the emulsion turns the scientific method on its head. Rather than using test data to confirm or falsify a hypothesis, the district court used the hypothesis to reject the data. Using an untested hypothesis to contradict objective data is contrary to the scientific method and is inappropriate under the rules of evidence. *See* Fed. R. Evid. 702 (3).

The Second Circuit, by affirming, has approved the district court's inverted and incorrect approach. The Second Circuit did not explain why it concluded that PCBs were present in Alcan's emulsion at Fulton, nor why it disregarded the court expert's evidence on this question.

District courts and courts of appeal should not have the discretion to disregard test results and scientific models that bear directly on the question of the presence or absence of hazardous substances without sound reasons.

As noted above, to be admissible, the expert opinion must be reliable, and must comport with the scientific method. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993); *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999). To be relevant, it must be shown that the factual bases for the opinion match the factual circumstances of the situation for which the opinion is offered. Fed.R.Evid. 702 (1) and (3). The opinion offered by Mr. Connolly meets neither of these criteria.

As this Court stated in *Daubert*, 509 U.S. at 590, "Proposed testimony must be supported by appropriate validation – *i.e.*, 'good grounds,' based on what is known" and "Scientific methodology today is based on generating hypotheses and testing them to see if they can be falsified...." 509 U.S. at 593 (citation omitted). As noted above, expert opinion must be reliable and must comport with the scientific method. *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993); *Kumho Tire Co. v. Carmichael*, 526 U.S. 137 (1999). To be relevant, it must be shown that the factual bases for the opinion match the factual circumstances of the situation for which the opinion is offered. Fed.R.Evid. 702 (1) and (3).

The expert testimony and opinions on which the courts below relied meet neither of these criteria. As this Court held in *General Elec. Co. v. Joiner*, 522 U.S. 136, 146 (1997), the lower courts in this case should have concluded "that there is simply too great an analytical gap between the data and the opinion offered."

The Court should grant *certiorari* to make it clear to trial courts that the principles and criteria of scientific or technical reliability enunciated in *Daubert*, *Joiner* and *Kumho* also apply in cases tried to the bench, for only insistence on reliable evidence can ensure sound adjudication. "...[I]f the law is to be anything more than a device for haphazardly redistributing wealth, it must ensure that such claims are based on valid science." L. Loevinger, "Science as Evidence, 35 Jurimetrics J. 153, 175-176 (1995)

CONCLUSION

For the reasons set forth above, this Court should grant Alcan Aluminum's petition for a writ of *certiorari*.

Dated: December 9, 2003

Respectfully submitted,

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IN THE

Supreme Court of the United States

ALCAN ALUMINUM CORPORATION,
Petitioner,

v.

UNITED STATES OF AMERICA;
STATE OF NEW YORK,
Respondents.

On Petition for Writ of Certiorari to the United States Court of Appeals for the Second Circuit

BRIEF OF WASHINGTON LEGAL FOUNDATION; U.S. SENATOR LARRY E. CRAIG; U.S. REPRESENTATIVES MICHAEL G. OXLEY AND JOHN M. McHUGH; N.Y STATE SENATOR JIM WRIGHT; N.Y. STATE ASSEMBLYMAN WILLIAM A. BARCLAY; OSWEGO CITY ATTORNEY EDWARD J. IZYK; NEW YORK STATE CONFERENCE OF MAYORS AND MUNICIPAL OFFICIALS; OPERATION OSWEGO COUNTY, INC.; CHAMBER OF COMMERCE OF THE UNITED STATES; NATIONAL RESTAURANT ASSOCIATION; AND THE ALLIED EDUCATIONAL FOUNDATION AS AMICI CURIAE IN SUPPORT OF PETITIONER

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WILSON-EPES PRINTING CO., INC. – (202) 789-0096 – WASHINGTON, D. C. 20001

QUESTION PRESENTED

Whether a company may be subjected to joint and several liability under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) for the entire cost of cleaning up a Superfund site, when its contributions to the site contained at most trace amounts of potentially harmful substances.

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INTERESTS OF AMICI CURIAE

The Washington Legal Foundation (WLF)[1] is a non-profit public interest law and policy center with supporters nationwide. WLF devotes a significant portion of its resources to promoting economic liberty, free enterprise principles, and a limited and accountable government. WLF regularly appears as amicus curiae in the Supreme Court and lower federal courts in cases raising important statutory and constitutional issues, including environmental and other regulatory cases. *See, e.g., United States v. Bestfoods, Inc.*, 524 U.S. 51 (1998); *United States v. Hercules, Inc.*, 247 F.3d 706 (8th Cir. 2001). WLF also appeared as amicus in the case at bar in the court of appeals. *United States v. Alcan Aluminum Corp.*, 315 F.3d 179 (2d Cir. 2003) (*Alcan II*).

U.S. Senator Larry E. Craig is the duly elected Senator from Idaho and Chairman of the Subcommittee on Forests and Public Land Management of the Senate Energy and Natural Resources Committee. Senator Craig appeared as amicus in *Alcan II*.

U.S. Representative Michael G. Oxley is the Representative from the 4th District of Ohio and Chairman of the House Financial Services Committee. Representative Oxley formerly chaired the House Subcommittee on Finance and Hazardous Materials which had direct jurisdiction over the Superfund program. U.S. Representative John M. McHugh is the Representative from the 24th District of

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[1] Pursuant to Supreme Court Rule 37.6, amici curiae state than no counsel for a party authored this brief in whole or in part, and that no person or entity, other than amicus Washington Legal Foundation and their counsel, contributed monetarily to the preparation and submission of this brief. By letters filed with the Clerk of the Court, the parties have consented to the filing of this brief.

New York which includes Oswego, New York. Both Representatives appeared as amici in *Alcan II*.

New York State Senator Jim Wright represents the 48th District of New York. New York State Assemblyman William A. Barclay represents the 124th Assembly District of New York. Edward J. Izyk is the City Attorney of Oswego, New York. These officials represent the geographical areas that include the area where the Superfund sites at issue in this case are located.

The New York Conference of Mayors and Other Municipal Officials is a not-for-profit voluntary association whose members represent 60 of the State's 62 cities, as well as 510 of the State's 558 villages. The Conference appeared as amicus curiae in support of Alcan in the related case in the Third Circuit, *United States v. Alcan Aluminum Corp,* 964 F.2d 252 (3d Cir. 1992), and in *Alcan II*.

The Chamber of Commerce of the United States ("the Chamber") is the world's largest business federation. The Chamber represents an underlying membership of more than three million businesses and business organizations, with 140,000 direct members of every size, in every business sector, and from every geographic region in the country. The Chamber regularly advocates its members' view in court on environmental issues of national concern to the business community. The Chamber was an amicus curiae in this case on the first appeal, *United States v. Alcan Aluminum Corp.*, 990 F.2d 711 (2d Cir. 1993) (*Alcan I*), as well as on the second appeal in *Alcan II*.

Operation Oswego County, Inc. is a business development organization in Oswego County, New York. Its mission is to establish and implement sound economic

development strategies in order to enhance the economic vitality of Oswego County's businesses, industries, and citizens leading to an overall better quality of life. Key to the mission is the creation and retention of job opportunities, diversification, and strengthening the local economic base, and developing the local economy in a planned, organized, and environmentally friendly atmosphere. Operation Oswego County, Inc. also appeared as an amicus in *Alcan II*.

The National Restaurant Association is the leading trade association representing the restaurant industry in the United States. The Association represents more than 240,000 restaurants, outlets, catering companies, and other entities. Its member companies have business in every state as well as in Puerto Rico and the Virgin Islands. Member companies range from fine-dining restaurants to fast-food establishments. The decision below raises serious concerns for the restaurant industry because food and cooking wastes that are properly disposed in accordance with all laws and regulations could be deemed to be "hazardous substances" under CERCLA. The National Restaurant Association also appeared as an amicus in *Alcan II*.

The Allied Educational Foundation (AEF) is a non-profit public policy organization based in Englewood, New Jersey. Founded in 1964, AEF promotes diverse areas of study in public policy issues, and has appeared as amicus curiae along with WLF in numerous cases, and appeared as amicus in *Alcan II*.

All amici, their members, and constituents believe that our environmental laws should be enforced in a fair, balanced, and reasonable manner as intended by Congress. The judgment of the court of appeals grossly distorts

congressional intent by imposing strict, joint and several liability under CERCLA for clean up costs of properly disposed of wastes that contain, at best, only a trace of a "hazardous substance."

Such far-reaching liability exposes businesses, municipalities and other entities which operate responsibly in handling and disposing of waste materials to substantial and unpredictable response costs that are incurred by federal and state governments. The liability exposure has hampered and will continue to hamper economic development and growth, and businesses in the competitive global market will be less inclined to locate or expand their operations in the United States. The result will be a loss of jobs and a decline in the economy, especially in the industrial areas of the country which are suffering the most.

Moreover, such broad exposure reduces the incentive for businesses to undertake measures to "clean" their wastes before disposal if they are going to be held jointly and severally liable for cleanup costs of Superfund sites, regardless of the level or concentration of hazardous substances that are contained in their wastes.

SUMMARY OF ARGUMENT

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §§ 9601 *et seq.*, was enacted by Congress in 1980 to address the significant harm to the environment posed by dangerous and hazardous wastes from abandoned waste sites, such as Love Canal, as well as those from active sites. A lame-duck 96th Congress -- far from "carefully formulat[ing]" CERCLA's provisions as the United States suggests (Opp. 12) -- quickly rushed the bill through the legislative process

as one of that body's last actions, producing what many courts and commentators have agreed is an incomprehensible statute with an equally enigmatic legislative history.[2]

This case presents the Court with a perfect and rare opportunity to address and make some sense of an important and recurring question of federal law, namely, whether Congress intended under CERCLA that businesses, municipalities, and other entities could be saddled with costly and ruinous joint and several liability for cleanup costs of an entire Superfund site where their non-hazardous wastes contain trace amounts of an EPA listed hazardous substance, even if that hazardous substance happens to be only one molecule of a ubiquitous man-made chemical. Amici submit that the answer to that question is an emphatic "no" and that this Court should review and reverse the erroneous judgment of the court of appeals to the contrary. Otherwise, the disposal of virtually anything in the universe, including rainwater, soil, and milk, would trigger liability under CERCLA.

An important related question is whether the court of appeals erred as a matter of law by ruling that harm caused by the release of the hazardous substances from a site cannot be divisible, and therefore, the response costs cannot

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[2] See *United States v. Conservation Chemical Co.*, 619 F. Supp. 162, 204 (W.D. Mo. 1985) (CERCLA is "a hastily assembled bill and a fragmented legislative history adds to the usual difficulty of discerning the full meaning of the law."); *Commander Oil Corp. v. Barlo Equip. Corp.*, 215 F.3d 321 (2d Cir. 2000) ("We are called upon in this case to resolve yet another ambiguity within CERCLA's miasmatic provisions."); *United States v. Alcan Aluminum Corp.*, 964 F.2d 252, 257 (3d Cir. 1994) (CERCLA is "riddled with inconsistencies and redundancies").

be apportioned, simply because the *non*-hazardous components of the waste of a company could spread the hazardous wastes produced by others. Amici submit that the court of appeals' answer to that question also threatens to expose entities to unfair CERCLA liability, and thus, should be reviewed and reversed as well.

REASONS FOR GRANTING THE PETITION

I. THE QUESTION OF WHETHER A COMPANY CAN BE SUBJECT TO JOINT AND SEVERAL CERCLA LIABILITY FOR TRACE AMOUNTS OF ONLY POTENTIALLY HARMFUL SUBSTANCES IS AN IMPORTANT QUESTION OF FEDERAL LAW THAT SHOULD BE DECIDED BY THIS COURT

The United States brought this cost recovery action against Alcan Aluminum Corporation (Alcan) under CERCLA, 42 U.S.C. § 9607, for the disposal of its emulsion at two Superfund sites in upstate New York. Alcan's emulsion consisted of 95 percent water and 5 percent mineral oil. Significantly, neither the virgin emulsion as a whole, nor its water and mineral oil components, are classified as "hazardous substances" under (CERCLA), 42 U.S.C. § 9601(14).[3] Rather, the used

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[3] In its Opposition, the government repeatedly and misleadingly refers to Alcan's emulsion as "waste oil emulsion." *See, e.g.*, Opp. 9-10. Since almost all of Alcan's emulsion is plain water, it would be more accurate to refer to Alcan's substance as a "water emulsion" rather than the more sinister sounding "waste oil emulsion," particularly when the mineral oil component of the emulsion is *not* a listed hazardous substance. In any event, amici will simply refer to the liquid as "emulsion" or "waste emulsion" in their brief which is the same terminology used by the court of appeals.

emulsion contained traces of certain metal compounds which, while technically classified as "hazardous substances" under CERCLA, were essentially harmless because of their below background levels.

After settling with 82 of the entities which generated hazardous wastes at the sites, the United States sought to impose joint and several liability upon Alcan, the only non-settling party, for the remainder of all the unreimbursed costs, totalling some $13.6 million.[4]

Central to the CERCLA liability scheme, and the most troubling aspect of this case, is the definition of "hazardous substance," the release of which triggers the imposition of strict, joint, and several liability. 42 U.S.C. § 9601(14)(B). A literal definition of "hazardous substance," without any requirement of quantity, concentration, or toxicity, would apparently cover "any element, compound, mixture, solution, or substance" designated by the EPA, however benign. Under this broad definition, "hazardous substances" would be found in, and thus include, breakfast cereal, garden soil, milk, and other life-supporting substances. See *United States v. Alcan Aluminum Corp.*, 990 F.2d 711, 716 (2d Cir. 1993) (*Alcan I*); Opp. 4, n.1 (citing cases).

Congress clearly did not intend that almost

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[4] While the statute is silent on the issue, most lower courts have construed CERCLA to impose strict (and retroactive) liability upon so-called "responsible parties" and to impose joint and several liability for the entire harm and response costs, but only if the harm from the release of hazardous substances is not divisible. See Opp. 5 (citing cases). If the harm is divisible, then liability is apportioned on a reasonable basis rather than jointly and severally. Amici address the divisibility issue in Point II, *infra*.

everything in the universe would be a "hazardous" substance. "There is nothing to suggest that Congress intended to impose far-reaching liability on every party who is responsible for only trace levels of waste. Several courts. . . have rejected the notion that CERCLA liability 'attaches upon release of *any* quantity of a hazardous substance.'" *Acushnet Co. v. Mohasco Corp.*, 191 F.3d 69, 78 (1st Cir. 1999) (citations omitted).

A basic canon of statutory interpretation is that courts should interpret statutes to avoid absurd results. *See, e.g., Trans Alaska Pipeline Rate Cases*, 436 U.S. 631, 643 (1978); *Public Citizen v. U.S. Dep't of Justice*, 491 U.S. 440, 454 (1989) ("Where the literal reading of a statutory term would 'compel an odd result, * * * we must search for other evidence of congressional intent to lend the term its proper scope."); *Commonwealth of Massachusetts v. Blackstone Valley Electric Co.*, 67 F.3d 981 (1st Cir. 1995) (court rejected broad definition of "cyanide" as hazardous substance since it would include everyday substances such as vitamin B-12 and lead to "nonsensical results").[5] As petitioner correctly notes, whether a substance is truly hazardous or not depends upon the *concentration* and *dose* of the substance. Pet. 7.

Acknowledging the force of these arguments by Alcan and its amici, the Second Circuit, instead of interpreting the definition of "hazardous substance" narrowly to comport with the intent of Congress, nevertheless crafted what it called a "special exception" to the liability standard that would essentially accomplish the

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[5] *See* Cathleen Clark, *Should the Butcher, the Baker and the Candlestick Maker Be Held Responsible for Hazardous Waste*, 1994 Utah L. Rev. 871, 916 (1994).

same result. Thus, in *Alcan I*, the court of appeals held that a defendant such as Alcan could "escape payment where its pollutants did not contribute more than background contamination and also cannot concentrate." 990 F.2d at 722. In doing so, the court's "special exception" implicitly acknowledges the fact that disposing substances, mixtures, or solutions that contain only background levels of a listed hazardous substance does not *cause* the incurrence of response costs.[6]

Yet on remand to the district court, Alcan was deemed not even eligible for the special exception because the district court made new findings based on circumstantial and questionable evidence that Alcan's otherwise non-hazardous emulsion contained some polychlorinated biphenyls (PCBs). The court of appeals determined in Alcan's second appeal that this finding was dispositive for jettisoning its previous below-background exception for the following reason:

> The finding that Alcan's waste emulsion contained PCBs is particularly significant because -- as the district court properly ruled -- it disqualifies Alcan from escaping all CERCLA liability. See *Alcan-Consolidated*, 97 F. Supp. 2d at 268-69. The "special exception" that we created when this case was previously before us was intended to excuse a responsible party from all CERCLA liability only in instances where (1) a party contributed hazardous

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[6] *Cf. United States v. Township of Brighton*, 153 F.3d 307, 319 & n.14 (6th Cir. 1998) (defendants who are not responsible for any of the harm "have effectively fixed their own share of the damages at zero. No causation means no liability, despite § 9607(a)'s strict liability scheme.").

> substances to a site in quantities that did not exceed background levels and (2) the hazardous substances were incapable of concentrating. See *Alcan*, 990 F.2d at 722. We created this exception based on an awareness that some CERCLA hazardous substances, like metals, occur in the environment naturally. The narrow exception carved out was aimed to shield from liability those entities that have contributed "hazardous" substances -- defined as such in the law -- to a site but whose contribution -- in the absence of EPA thresholds -- did not exceed natural background levels, and did not themselves trigger the incurrence of response costs. Because Alcan's emulsion was contaminated with PCBs, which are man-made substances without natural background levels, Alcan cannot escape liability under the special exception this court articulated.

Pet. App. 10a. The court of appeals completely gutted its below-background exception based on the wholly arbitrary and artificial distinction between background levels of natural hazardous substances and manmade hazardous substances such as PCBs. In short, the court of appeals concluded with the urging of the government that a background level of PCBs is zero; anything above that level subjects an entity to joint and several liability.

Because of the ubiquitous presence of PCBs in the environment, virtually every non-hazardous substance automatically becomes a hazardous substance simply by being exposed to the air where PCBs can be found. If left intact, the court of appeals ruling threatens to expose entities to costly and ruinous liability for cleanup costs of a Superfund site simply because they lawfully disposed of otherwise benign non-hazardous waste at sites or landfills as

directed by the government authorities.

The inescapable and unrefuted fact is that PCBs have background levels in the natural environment -- in the air, water, and soil. PCBs are ubiquitous and can be found in such pristine areas such as the Arctic.[7] As Alcan poignantly noted, the Food and Drug Administration (FDA) has even set allowable levels of PCBs that contaminate our food and food packaging. Pet. at 9 (citing to 21 C.F.R. § 109.30) (reproduced hereto as an Appendix to amici's brief). Notably, the FDA regulation -- which falls within Subpart B entitled "**TOLERANCES FOR UNAVOIDABLE POISONOUS OR DELETERIOUS SUBSTANCES**" -- recognizes that PCBs are "toxic, industrial chemicals [which] have become a persistent and *ubiquitous* contaminant in the environment." *Id.* (emphasis added). The FDA has set acceptable and tolerable limits of PCBs that contaminate our milk, poultry, eggs, fish, and even "*infant and junior foods*." 21 C.F.R. § 109.30(a)(1)-(9) (emphasis added). Amici App. 2a. In short, while the government deems it safe for infants to eat PCB contaminated food, disposing of that same food or other wastes which may contain even *less* of a concentration or amount of PCBs, subjects the entity to costly joint and several liability for discharging a "hazardous substance."

The government's feeble response to that absurd result is that the FDA "does not purport to establish permissible 'background' levels of PCBs for purposes of

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[7] *See Washington Post*, May 17, 2001, at A17 (PCBs travel naturally in "ocean currents, or in the winds, falling in places where they have never been used * * * . More than 6 tons of PCBs reach the Arctic each year this way."). Thus, while PCBs are synthetic, they have a "natural" background level.

CERCLA response action." Opp. 15, n.4. But what the government does not and cannot address or recognize is that PCBs, because they are ubiquitous, have background levels in the environment. Accordingly, there is no reason in the law or logic to impose CERCLA liability upon an entity that merely disposes of a non-hazardous substance such as water, simply because it may contain, and most certainly does contain, a harmless PCB molecule.

Further undercutting the position of both the court and the government in this regard is EPA's own remediation policy that, as Alcan noted (Pet. 9), recognizes that both natural and many manmade pollutants have background levels above zero, and, hence, do not require cleanup. EPA, Office of Solid Waste and Emergency Response, Office of Emergency and Remedial Response, *Role of Background in the CERCLA Cleanup Program*, OSWER 9285.6-07P, at 7 (Apr. 26, 2002). Otherwise, an EPA ordered cleanup would result in the site being cleaner than the surrounding natural area. Here too, the government feebly responds by claiming that the background levels of PCBs that may be taken into account are those that are "present as a result of human activity but not specifically related to the CERCLA release in question." Opp. 15, n.4.

Both of these non-responses simply illustrate the bankruptcy of the government and lower courts' positions.[8]

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[8] The United States position in this case also appears to conflict with its position before the European Commission on the EU's draft chemical regulation. In its comments to the EU, the United States complained that the draft regulation "appears to adopt a particularly costly, burdensome, and complex approach, which could prove unworkable in its implementation, adversely impact innovation and disrupt global trade." *Comments of the United States on the*

In short, unless the Second Circuit is overturned on this score, the disposal of liquid or solid wastes by manufacturers, or food and food packaging materials by restaurants, which already contained trace amounts of PCBs before the waste was disposed, exposes the businesses to strict, joint, and several liability.

The decision below is not only contrary to law, but also contrary to sound public policy. Unless overturned or revised, the decision would discourage companies from incurring expenses and developing technology to reduce the level of hazardous substances in their wastes before disposal. If a company is going to be held strictly, jointly, and severally liable for the cleanup costs of the wastes from other entities, regardless of the relative toxicity of its own wastes, the company would have little or no incentive to develop methods and technology to "clean" its wastes before disposal.

Under the Second Circuit's rationale, if Company A disposes 1,100 gallons of clean wastewater containing only trace levels of PCBs at a waste site that already contains 110 gallons of *heavily* concentrated PCBs disposed of by Company B, Company A could be held liable for up to 100 percent of any cleanup costs, even though the real polluter could be not liable at all (due to the 2002 amendment to CERCLA exempting up to 110 gallons of liquid waste from liability, 42 U.S.C. § 9607(o)), or only liable for as little as one percent of the costs based solely on volumetric ratios.

European Commission Draft Chemicals Regulation (July 10, 2003) at 2. In particular, the U.S. expressed concern that regulation should not focus on chemicals that have "low intrinsic hazard" or "low exposure potential." Rather, resources "should focus on chemicals . . . likely to pose the greatest health and environmental risks." *Id.* at 3.

This unfair result would obtain even though the concentrated PCBs from Company B became diluted and less harmful, thanks to Company A's cleaner water.

Imposing CERCLA liability in cases such as this is patently unfair, unpredictable, and uninsurable. Amici local governments and municipalities which provide waste collection and disposal services for their citizens are exposed to joint and several liability for any cleanup costs at a disposal site since all trash, food remains, paper, vitamins, cereal, and even leaves and lawn clippings could be considered "hazardous substances" under the lower court's opinion and not be eligible for the limiting special exception. In short, the decision of the lower courts in this case violated the intent of the Congress that "polluters pay" for the remediation costs.

II. THE LOWER COURT'S CONCLUSION THAT THE HARM IS NOT DIVISIBLE RAISES AN IMPORTANT QUESTION OF CERCLA LIABILITY

Even assuming, *arguendo*, that Alcan could not escape liability altogether because there is no permissible background level for PCBs, and that the presence of one PCB molecule in water will suffice to impose joint and several liability for cleanup costs, the court of appeals -- reiterating language from its earlier decision in *Alcan I* -- stated that Alcan could nevertheless limit the extent of its liability by showing that it "contributed at most to only a divisible portion of the harm." Pet. App. 8a.

Far from being a "fact-specific challenge" to the court of appeals ruling on the issue of divisibility as the government suggests (Opp. 18), the initial question of

whether a harm is divisible is a pure question of law that is reviewed *de novo*. *In re Bell Petroleum Services, Inc.*, 3 F.3d 889, 902 (5th Cir. 1993); *United States v. Hercules, Inc.*, 247 F.3d 706, 718 (8th Cir. 2001). Here, both the district court and court of appeals stumbled badly and erred as a matter of law in determining that the harm was not and could never be divisible, regardless of the PCB levels that may have been in the emulsion. Accordingly, amici submit that review by this Court is warranted in order to provide much needed guidance to the Second Circuit and other lower courts on the proper application of common law principles of apportionment of harm and divisibility as reflected by the Restatement (Second) of Torts, §433A (1965).[9]

The court of appeals purported to justify its finding of no divisibility as follows:

> Our conclusion that Alcan is jointly and severally liable for the harm caused at PAS and Fulton is based upon the district court's finding that
>
> > * * * Alcan's emulsion *contributed* to the breadth of contamination at both PAS and Fulton. In other words, even if the hazardous substances in Alcan's emulsion themselves did not *contribute* to the response costs at the sites (which the PCBs and nickel did), the emulsion as a whole *contributed* to

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[9] **§ 433A. Apportionment of Harm to Causes**

(1) Damages for harm are to be apportioned among two or more causes where

(a) there are distinct harms, or

(b) there is a reasonable basis for determining the contribution of each cause to a single harm.

both the release and response costs.

Pet. App. 12a-13a, citing *Alcan-Consolidated*, 97 F. Supp. 2d at 270 (emphasis added). But this facile conclusion simply begs the question: was the harm nevertheless divisible or subject to reasonable apportionment under the Restatement and common law principles? Putting aside the reasonable notion that Alcan's emulsion may have actually *diluted* the hazardous substances disposed of by others at the site, and thus, ameliorated any environmental harm, the court's rejection of any divisibility of harm as a matter of law has enormous consequences for businesses.

The government struggles vainly to defend the faulty reasoning of the court of appeals by noting that after all, the non-hazardous water and mineral oil which moved other hazardous substances contained the ubiquitous PCBs (regardless of the amount), and that technically speaking, this mixture "in itself, qualified as a hazardous substance" (Opp. 20), even though the PCBs themselves had absolutely nothing to do with the emulsion spreading the waste. Amici submit that the presence of a trace "hazardous substance" in Alcan's or anyone else's benign emulsion or waste cannot be the bootstrap or trigger that imposes massive multi-million dollar joint and several liability.

The district court went astray with its tortured and result-oriented application of the Restatement to show there can be no divisibility by citing only to certain gun hypotheticals from Prosser & Keaton on Torts (5th Ed. 1984) that discuss only *indivisible* harm. Pet. App. 54a.[10]

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[10] [T]he conduct of multiple tortfeasors need not be simultaneous to cause an indivisible harm, "[o]ne defendant may create a situation upon which the other

These gun hypotheticals are clearly distinguishable from this case, and not surprisingly, were not discussed, let alone cited with approval, by either the court of appeals or the government. The "single gun" example is clearly inapposite here since there are multiple sources of the pollution in this case. The "separate guns" example fails too because that scenario contemplates only one final result from the shooting: death.[11]

The Restatement is replete with more apt pollution scenarios that call for divisibility and apportionment; the courts below ignored these more relevant scenarios. As the Restatement notes, "apportionment is *commonly made* in cases of private nuisance, whether the pollution of a stream, or flooding, or smoke or dust or noise, from different sources, has interfered with the plaintiff's use or enjoyment of his land." § 433A, cmt. d. (emphasis added).

> may act later to cause damage." [Prosser] at 348. For example, "[i]f two defendants, struggling for a single gun, succeed in shooting the plaintiff; there is no reasonable basis for dividing the liability." *Id.* at 345. Moreover, if two defendants shoot the plaintiff "independently, with separate guns, and the plaintiff dies from the effect of both wounds, there can still be no division." *Id.*

Pet. App. 54a.

[11] As the Restatement is careful to note, "[c]ertain kinds of harm, by their very nature, are normally incapable of any logical, reasonable, or practical division. Death is that kind of harm, since it is impossible. . . to say that one man has caused half of it and another the rest." Restatement § 433A, cmt. on subsec.(2)(i). In this case, the environment at the PAS and Fulton sites may have been wounded or harmed, but it certainly was not "killed" or completely destroyed.

Ignoring the Restatement's pollution examples, and relying instead on the inapt gun/death hypotheticals, the district court came to the erroneous conclusion that "where two independent causes combine to cause an aggregate harm which exceeds the sum of the individual harms such that the harm attributable to each PRP becomes *indistinguishable*, the harm is not divisible." *Id.* Pet. 54a-55a (emphasis added). In fact, nothing in the Restatement or common law suggests that divisibility can never be established simply because the aggregate harm may exceed the sum of the individual harms. Nor is divisibility precluded even if the harm "attributable to each PRP becomes indistinguishable." The court's fundamental error was that it ignored the more relevant single harm/divisibility principle of Restatement § 433A(1)(b). Simply put, divisibility does *not* require the court to "distinguish" or "fingerprint" each harm and match it to a particular PRP in order for the harm to be divisible. See Restatement (Second) of Torts, § 881, illus.2.

In the case at bar, there is no question that what "drove" the remediation was the presence of numerous and distinct chemicals which were either *not* in Alcan's emulsion, or at below background levels. Nevertheless, the district court maintained that "even taking Alcan's proposition that its waste contained only oil, water, and background metals as true [that is, assuming that the emulsion is non-hazardous], the Court cannot conclude that the emulsion did not contribute to the release and clean-up costs at PAS." Pet. App. 55a-56a, n.30. Under this reasoning, CERCLA liability is not only strict, but it has become absolute, and thus far beyond Congress's original intent that the polluter should pay. As Alcan aptly observed, the court of appeals ruling in this regard "threatens to blow the limits off CERCLA liability entirely." Pet. 13.

Even assuming the worst-case scenario that this was exclusively a PCB Superfund site, the court should have considered the relative toxicity of Alcan's emulsion in apportioning costs. A good example of this is found in *Allied Signal v. Amcast International Corp.*, 177 F. Supp. 2d 713 (S.D. Ohio 2001), where the court apportioned clean up costs using a relative toxicity analysis.[12] In *Allied Signal*, the court found that both the plaintiff and defendant had dumped PAHs, a hazardous substance not unlike PCBs, at the site in question, and had produced a single harm necessitating response costs.

Evidence was introduced showing that the plaintiff was responsible for 72% of the total waste volume at the site, and that the defendant was responsible for 28%. Apropos to the case at bar, the *Allied Signal* court noted that the defendant's waste was "overwhelmingly composed of inorganic sand" [compare to Alcan's non-hazardous water and mineral oil] and thus "largely non-toxic." *Id.* at 752. Accordingly, the court properly rejected the volumetric ratio of 28% and relied on testimony showing that the relative amount of the PAHs in the defendant's waste -- since it was the presence of PAHs that drove the remediation -- to be only in the 2-3% range. Although the court agreed with the plaintiff that since the wastes were mixed or commingled, it was impossible to determine whose PAH actually contaminated the groundwater, the court was nevertheless able to make a fair apportionment of

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[12] While the apportionment of liability in *Allied Signal* was done in the context of a 42 U.S.C. § 9613(f) contribution action applying certain equitable factors, the relative toxicity factor is essentially identical to the relative toxicity factor that the court of appeals indicated in *Alcan I* is available to a defendant in a cost recovery suit under § 9607 to eliminate or limit its liability.

the costs based on the evidence.

In the case at bar, the courts below did not find the harm divisible at all, neither at the volumetric level, nor at the more appropriate toxicity level. Even accepting the district court's finding that Alcan's emulsion contained PCBs, the evidence proffered showed that Alcan's contribution of PCBs would have been only .01% of the PCBs from all other known sources, and that the total amount of PCBs constituted only 0.24% of all the hazardous wastes at this site. Pet. 12. Accordingly, at best, Alcan's fair share of liability should be but a fraction of the $13.6 million imposed. The government's attempt to challenge Alcan's evidence in this Court now (Opp. 19) is without merit, comes way too late, and in any event, is irrelevant, because the court below imposed joint and several liability regardless of PCB levels in the emulsion.

CONCLUSION

In retrospect, the court of appeals in *Alcan I* sent the petitioner on a costly and time-consuming fool's errand back to the district court to show divisibility; in the process, both courts revealed in their subsequent decisions just how foolish and absurd their interpretation of CERCLA's reach can be. Because of the inordinate liability and litigation costs associated with defending CERCLA cases, and considering that more than 15 years has been consumed in litigating this case to refine the issues, it is unlikely that the Court will ever again have this rare opportunity to address the important issues presented in this case having such far-reaching consequences.

For the foregoing reasons, this Court should grant the petition for certiorari.

Respectfully submitted,

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TITLE 21 -- FOOD AND DRUGS
CHAPTER I -- FOOD AND DRUG ADMINISTRATION, DEPARTMENT OF HEALTH AND HUMAN SERVICES

SUBCHAPTER B -- FOOD FOR HUMAN CONSUMPTION

PART 109 -- UNAVOIDABLE CONTAMINANTS IN FOOD FOR HUMAN CONSUMPTION AND FOOD-PACKAGING MATERIAL

SUBPART B -- TOLERANCES FOR UNAVOIDABLE POISONOUS OR DELETERIOUS SUBSTANCES

21 CFR 109.30

§ 109.30 Tolerances for polychlorinated biphenyls (PCB's).

(a) Polychlorinated biphenyls (PCB's) are toxic, industrial chemicals. Because of their widespread, uncontrolled industrial applications, PCB's have become a persistent and ubiquitous contaminant in the environment. As a result, certain foods and animal feeds, principally those of animal and marine origin, contain PCB's as unavoidable, environmental contaminants. PCB's are transmitted to the food portion (meat, milk, and eggs) of food-producing animals ingesting PCB-contaminated animal feed. In addition, a significant percentage of paper food-packaging materials contain PCB's which may migrate to the packaged food. The source of PCB's in paper food-packaging materials is primarily of certain types of carbonless copy paper (containing 3 to 5 percent PCB's) in waste paper stocks used for manufacturing recycled paper. Therefore, temporary tolerances for residues of PCB's as unavoidable environmental or industrial contaminants are established for

a sufficient period of time following the effective date of this paragraph to permit the elimination of such contaminants at the earliest practicable time. For the purposes of this paragraph, the term "polychlorinated biphenyls (PCB's)" is applicable to mixtures of chlorinated biphenyl compounds, irrespective of which mixture of PCB's is present as the residue. The temporary tolerances for residues of PCB's are as follows:

(1) 1.5 parts per million in milk (fat basis).

(2) 1.5 parts per million in manufactured dairy products (fat basis).

(3) 3 parts per million in poultry (fat basis).

(4) 0.3 parts per million in eggs.

(5) 0.2 parts per million in finished animal feed for food-producing animals (except the following finished animal feeds: feed concentrates, feed supplements, and feed premixes).

(6) 2 parts per million in animal feed components of animal origin, including fishmeal and other by-products of marine origin and in finished animal feed concentrates, supplements, and premixes intended for food producing animals.

(7) 2 parts per million in fish and shellfish (edible portion). The edible portion of fish excludes head, scales, viscera, and inedible bones.

(8) 0.2 parts per million in infant and junior foods.

(9) 10 parts per million in paper food-packaging material intended for or used with human food, finished animal feed and any components intended for animal feeds. The tolerance shall not apply to paper food-packaging material separated from the food therein by a functional barrier which is impermeable to migration of PCB's.